



Study on the feasibility of an education and training investment platform

Annexes to Report

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Annex 2 The investment context for the study

A2.1 Investment Plan for Europe and the role of Investment Platforms

A2.1.1 Investment Plan for Europe

The Investment Plan for Europe (IPE) was launched as the first major initiative of the Juncker Commission in November 2014, in recognition of the persistently low levels of public and private investment. The Plan consists of three mutually-reinforcing strands:

1. The European Fund for Strategic Investments (EFSI), which aims to mobilise at least €315bn in additional investment between 2015 and 2018;
2. Making sure this funding reaches the real economy through:
 - Greater transparency on investment projects in Europe, using tools such as the European Investment Project Portal, which launched in February 2016;
 - Strengthening advisory services through the new European Investment Advisory Hub,
3. Improving the investment environment through:
 - Better and more predictable regulation at all levels;
 - Expanding the Single Market;
 - Structural reforms in the Member States;
 - Improving openness to international trade and investment.

The Investment Plan includes a focus on Human Capital, Skills, Social Economy and Health.

The study is motivated by the fact that currently there are no education investments mobilised under the Investment Plan for Europe (IPE). One reason for the lack of demand for IPE from the sector is that the education sector has 'not been in the state of mind for using financial instruments for funding', perhaps with the exception of a few countries that have already experimented in this area.

Important limitations to mobilising investment in education:

- Most formal initial education is delivered by public sector, financed primarily by grants. The question is how to complement such grant funding by other sources of finance rather than how to replace it – subject to cultural and political constraints on the involvement of the private sector in the provision of education and training services
- There are clear limitations in project size – even infrastructure projects in education tend to have too small a size to attract investors. In addition many of these smaller projects tend to be relatively risky – the investment platform (see below) can address the small size of the project by supporting aggregation so that they become visible/attractive to investors.

The European Investment Fund (EIF) responsible on behalf of EIB for the management of EFSI have been developing new investment 'windows' through which investment might be made available. In addition to the 'infrastructure' and 'SME' windows, a new 'Expansion and Growth' window has been established to target social investment, and to support social enterprise. EIF have also launched requests for expressions of interest from financial intermediaries to help deliver EFSI in this area.

A2.1.2 Investment Platforms

The main vehicle for accessing the IPE is the investment platform (see Box below).

Box 1 Investment Platforms

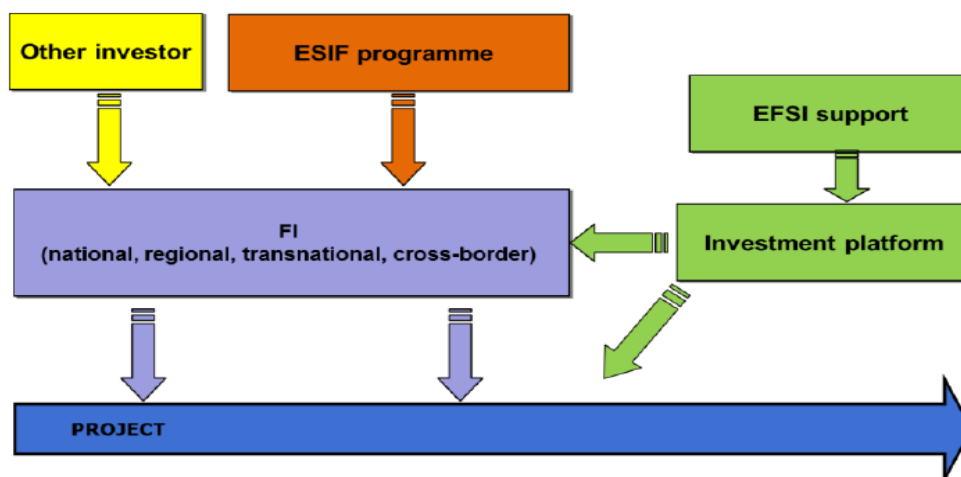
“Investment platforms are in essence co-investment arrangements structured with a view to catalysing investments in a set of projects (as opposed to individual projects). Investment platforms are a means to aggregate investment projects, reduce transaction and information costs and provide for more efficient risk allocation between various investors.”¹

To secure EFSI financing, a project promoter could directly approach EIB, or else it could approach a National Promotional Bank with the latter offering support through its own resources and / or as an intermediary of EFSI. Investment platforms may take a range of forms, some involving the creating of a new legal entity (e.g. special purpose vehicle) and others not (e.g. managed account, contract-based co-financing, and risk-sharing arrangements).

A platform could be established by a platform sponsor as follows²:

- A Member State (or regional/local authorities) as sponsor could set up a platform. This could take the form of a fund-of-funds, which would in turn select financial intermediaries (see Figure 1) - or it could itself act as a financial intermediary directly supporting projects (see Figure 2).
- Private investors could set up a thematic / sectoral platform, supported by the MS on the basis of a thematic (multi-regional) project portfolio. Investors would request EFSI financing on a project-by-project or portfolio basis.

Figure 1. Investment platform acting as a fund of funds³

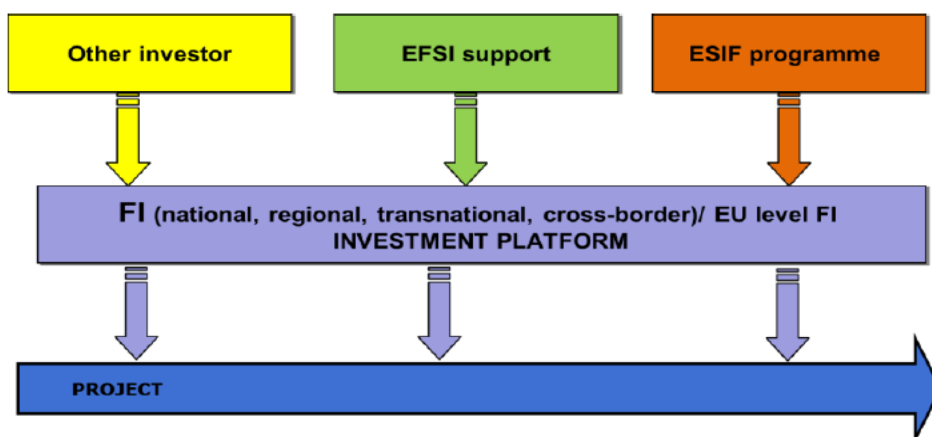


¹ See section 3.2 of Communication COM (2015) 361 final 'Working together for jobs and growth: The role of National Promotional Banks (NPBs) in supporting the Investment Plan for Europe', 22/7/2015

² See p.20 of European Commission's 'Brochure on ESIF / EFSI complementarities', 13/10/2015, available at <http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=20734&no=2>

³ Source: p.9 of European Commission's 'Brochure on ESIF / EFSI complementarities', 13/10/2015 - available at <http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=20734&no=2>

Figure 2. Investment platform acting as a financial intermediary⁴



A2.1.3 Platform sponsors

The key actor is the Platform Sponsor (see Guidance Brochure – Annex 2)

Each investment platform will need to be set-up by an organization (platform sponsor) that will be the driving force in the creation of the platform. The sponsor needs to establish:

- the investment needs,
- the sectorial and geographical focus,
- the business case,
- the sources of funding,
- the risk-sharing agreements,
- decision-making rules.

The sponsors will usually come up with the investment idea for the platform to deliver. Often, they will provide part of the funding for the platform's activities. Sometimes they would manage the platform.

Any institution or a group of institutions can become a platform sponsor. The following types of entities could be platform sponsors:

- i. National Promotional Banks
- ii. Government agencies
- iii. Commercial Banks and other lending institutions
- iv. Investment Funds and Investment Companies
- v. Corporates
- vi. Body implementing ESIF programme financial instrument
- vii. Sovereign Wealth Funds

A2.1.4 The role of National Promotional Banks

National Promotional Banks (NPBs) are entities mandated by MS to carry out development or promotional activities. NPBs typically hold significant financing and advisory roles in their constituencies – having a good knowledge of local investment opportunities.

⁴ Source: p.8 Op cit

A variety of NPBs are active at national level. Among the largest, Kreditanstalt für Wiederaufbau (KfW, Germany), Bpifrance (France), Caisse des Dépôts et Consignations (CDC, France), Cassa Depositi e Prestiti (CDP, Italy), Instituto de Crédito Oficial (ICO, Spain) and the recently-created Green Investment Bank and British Business Bank (United Kingdom) all provide financing to key sectors and invest in projects in innovative, environment-friendly and social areas where market failures have been identified. Portugal, Ireland, Greece and Latvia have also recently established NPBs.

Due to their complementary product ranges and geographic reach, NPBs play an important role in the implementation of the Investment Plan for Europe. They may participate in different ways: (i) directly as a financial intermediary of EFSI financing; (ii) through making contributions from their own resources at the investment platform level – in parallel to EFSI (iii) through making contributions from their own resources at the project level – again in parallel to EFSI financing.

At present, nine MS have committed to participate under the EFSI, mostly through NPBs – financing amounts to €42.6bn. See Table 1 below. These lenders may receive additional support from the EIB.

*Table 1. Financing announced via NPBs in Member States*⁵

Member State	NPB	Financing (up to)
Germany	KfW	€8bn
Spain	ICO	€1.5bn
France	CDC	€8bn
Italy	CDP	€8bn
Luxembourg	SNCI	€80m
Poland	BGK/PIR	€8bn
Slovakia	SIH/SZRB	€400m
Bulgaria	BDB	€100m
United Kingdom	Use of a range of institutions (e.g. GIB and BBB ⁶)	€8.5bn
Total		€42.6bn

⁵ Source: Box 1 (p8) of COM (2015) 361: Communication from the Commission to the European Parliament and Council: 'Working together for jobs and Growth: The role of National Promotional Banks in supporting the Investment Plan for Europe'

⁶ <http://www.publications.parliament.uk/pa/cm201516/cmselect/cmeuleg/342-iii/34243.htm>

Case study 1 - KfW's proposal for EFSI financing to extend its student loan programme⁷

At a recent European Commission / EIB joint event, KfW provided a presentation on the role of financial instruments in financing education in the context of the Investment Plan for Europe and Education.

KfW outlined underlying drivers for investment in education in Germany: a growth in the knowledge economy, as evidenced by the increase in the share of tertiary sector employees from 40% in 1940 to 70% in 2014.

KfW supports this rising demand through various means: €1.4bn of direct loans to higher education students, €291m of lending to support state student grant schemes, €226m of municipal investment loans for educational infrastructure (largely standard loans to local and municipal authorities) and €40m of energy efficiency investments in building stock.

The student loan scheme is offered to German citizens under 45 years old studying at a state or state recognised higher education institution – the scheme has a disbursement period of up to 7 years and a repayment period of up to 25 years. KfW argues that success of the student loan programme is evidenced by surveys indicating 86% of recipients state that they could not have financed their studies without this.

In the context of the EFSI, KfW is currently in discussions with the Commission and EIB with regard to extension of the student loan scheme to all EU citizens through additional commitments of around €450m. This would take the form of a risk-sharing facility part-financed by EFSI; the current challenge faced by KfW and the EIB is to bring the existing structure and process of the student loan scheme in line with the EIB design of the guarantee. Scaling up existing processes for a wider pool of markets and MS would likely entail additional partners to pool risk and provide investment and market insights - this could entail a new thematic investment platform. As the EIB's educational financing to date evidences, there appear to be a range of investment opportunities around higher education loans. In addition, such cooperation would build on long existing partnership between the EIB and KfW in energy and infrastructure focused investment platforms (see below).

A2.1.5 Current volume of investment into education in the EU⁸

Total annual expenditure in the EU on education and training amounted to approximately €811 billion in 2014, out of which approximately € 122 billion came from private sources (15% of the total expenditure on education). This suggests that private investment is a relatively small but important source of education funding, with some countries relying on this type of education funding much more (UK, Portugal) than others (Sweden, Finland, Austria). It is also important to note that the proportion of private expenditures has markedly risen between 2005 and 2012 in some Southern European countries (Portugal, Italy and Spain).

The public current EU expenditure can be estimated approximately at €638 billion, whereas capital expenditure is estimated to be only €51 billion (about 7% of the total expenditure on education at EU level). This suggests there is scope for directing additional private finance not only towards infrastructure / hardware, but also towards current expenditure, although it may be more difficult to monetise the benefits in the form of incentives for private investment.

Finally, a number of Member States have reduced spending on education in the wake of the global economic downturn (Portugal, Spain, Hungary, Ireland, Estonia and

⁷ http://ec.europa.eu/education/events/2015/docs/kfw-financing-education_en.pdf

⁸ For more detail see Annex 2

Italy). Investment needs might be especially high in these countries, suggesting opportunities to incentivise private investment if revenue streams can be mobilised.

A2.1.6 European Investment Bank (EIB)

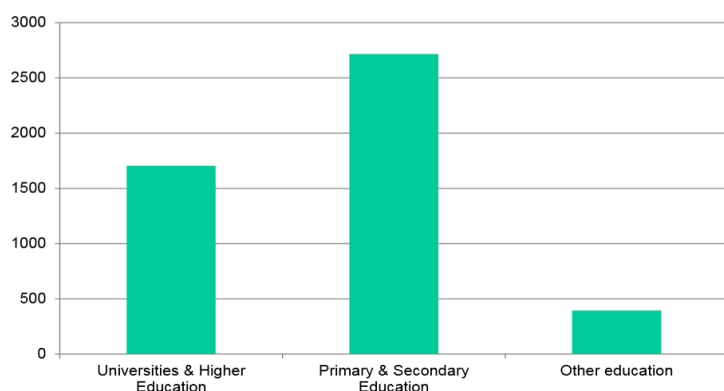
The lending activity of the EIB provides some indication of the types of projects that could be funded through new platforms, although the key challenge is not to invest in education and training per se but to seek to leverage private sector investment.

EIB lending to education projects dates from 1997, following the European Council Resolution on growth and employment, and has the core objectives of fostering higher quality standards, efficiency in support of knowledge economy objectives, and ensuring equal access to all forms of education.

Between 2000 and 2014, some €31bn of loans were signed for educational projects, with primary and secondary education representing the largest area of focus although a significant share was invested in higher education (see Figure 3). Annual lending for projects with an educational focus has also shown a strong upwards trend since 2000 (Figure 4). The data for 2011-16 indicates a reasonable spread across MS, with significantly higher levels observed in some of the larger MS (notably France, UK, Spain and Germany) - see Figure 5.

The EIB underlines that priority is currently given to projects pursuing the 'highest quality' in higher education and related research activity. Efforts to invest in better education and training are identified as a top priority for the EIB, and the bank employs more than 20 in-house health and education specialists.⁹

*Figure 3. EIB lending to the education sector (EUR m), by sector, 2014*¹⁰



⁹ Source: slide 9 of 'EIB Lending for Education Sector Projects': keynote presentation for conference Education and the Investment Plan for Europe, by Harald Gruber, Digital Economy and Education Division, EIB – 5 October 2015

http://ec.europa.eu/education/events/2015/docs/eib-lending-education-sector-projects_en.pdf

¹⁰ Source: *ibid*

Figure 4. EIB lending for education (EUR m), year-on-year 2000 – 2014 ¹¹

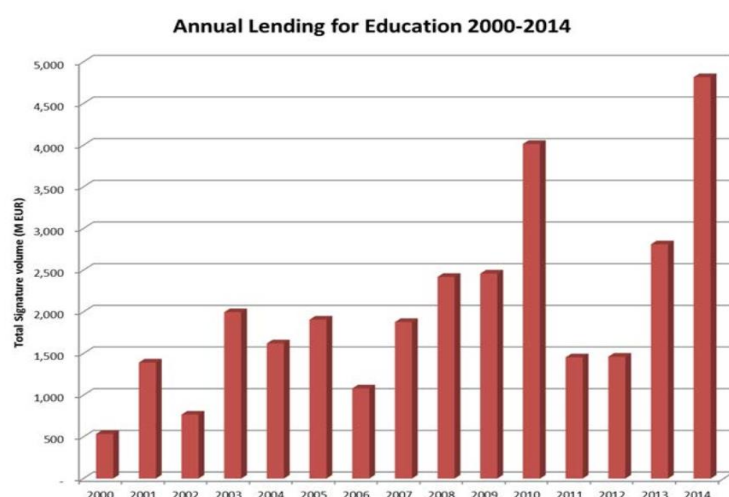
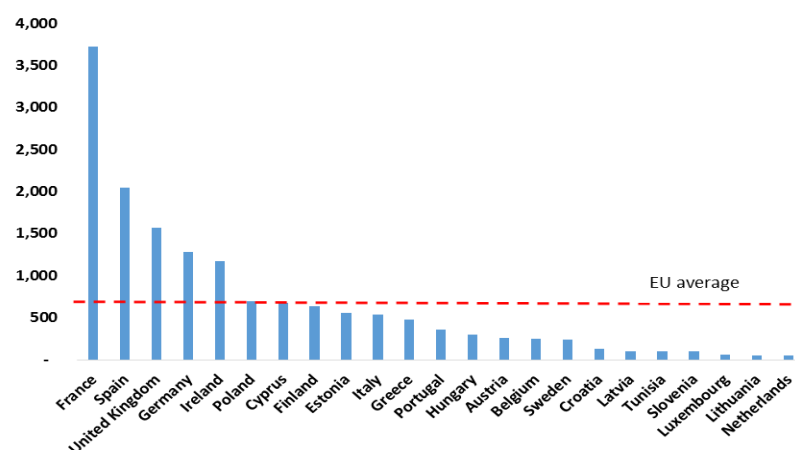


Figure 5. EIB lending for education, by MS (EUR m), 2011-2016 ¹²



The EIB has explored opportunities for educational project lending in the context of the EFSI, noting the additionality requirements of the fund that projects shall typically have a higher risk profile than projects supported under normal EIB operations. However, projects under EIB special activities carrying a lower risk may also be supported by the EFSI if the use of the EU guarantee is required to ensure additionality.

As such, the EIB sees opportunities for:

- Public Private Partnerships (PPP);
- Private sector based establishments (University, pre-primary education);
- Teacher training; and
- Vocational training (especially social impact bonds).

¹¹ Source: ibid - slide 10

¹² Based on project data available at <http://www.eib.org/projects/loans/sectors/education.htm>

Case Study 2 EIB lending to Higher Education

Since 1997, the EIB has provided more than €1bn of funding to support educational projects in the UK. Lending to ten of these projects was advanced under public-private partnership financing schemes, and five under the Structured Financing Scheme (a specialist EIB facility for advancing loans to projects of higher perceived risk).

Recent examples include a 30-year, €257m loan to Oxford University to support the University's improvement programme to replace and upgrade existing building stock, the largest ever single loan to a university, as well as smaller loans to Bangor (€58m) and Newcastle University (€129m) to support modernisation of building stock and facilities. This follows on from a 2012 EIB pledge to invest up to €1bn over a 5-year period, as well as recent changes to the bank's lending criteria for universities, which have historically focused on research-intensive institutions.

Collectively, the universities of Edinburgh, Strathclyde and York have benefited from more than £180 million in EIB loans. A £60 million loan for a £120 million science and innovation campus at Swansea University is also in the pipeline, as well as potential projects at three other institutions. These investments have been made at a time when capital spending through the Higher Education Funding Council for England has more than halved, and reflect the bank's perception of the substantial added value the UK higher education sector brings to the European economy.

Elsewhere in the higher education sector, the EIB has provided funding to support two student loan schemes: one for the Banca Intesa for the Politecnici of Milan, Turin and Bari (see text box below), and a subsequent project with Hungary's Diákhitel Központ, a state agency for the sector, which has cut its cost of capital significantly thanks to the EIB loan and passed this gain on to students. In the same vein, EIB recently undertook a major sector study on reforming the Higher Education Sector in Poland, which highlighted the need to resuscitate the student lending system.

Case Study 3 Banca Intesa student loan programme¹³

The EIB's €25 million loan to Banca Intesa was designed to facilitate access to higher education for students of technological universities, the "Politecnici" of Milan, Turin and Bari. Banca Intesa acted as the EIB's intermediary, on-lending to students enrolled in one of the three Politecnici and having successfully completed the first two years of studies, as final beneficiaries. The project complemented the financing of several key infrastructure investments in these universities, also carried out by the EIB, to improve their internal efficiency and the quality of facilities. Along with Fondazione Cariplo, the banking foundation of the Banca Intesa group and the largest foundation of this kind in Italy, the Politecnici also established a €1 million fund partially to cover the default risk and potentially to enhance credit terms under the scheme. Later, Banca Intesa extended the programme to other universities. There are 15 higher education institutions participating in the programme and 6 more are ready to join.

Case Study 4 EIF Erasmus+ Master Loan Guarantee¹⁴

The Erasmus+ Master Loan Guarantee is an EU initiative managed and implemented by EIF (part of the EIB group) on behalf of the DG Education and Culture of the European Commission. It was launched in December 2014 in the context of Erasmus+, the EU programme that aims to enhance student mobility in Europe. It began operation early in

¹³ <http://www.eski.hu/new3/konyvtar/bookshop/EIB%20lending%20for%20health.pdf>

¹⁴ <http://www.eski.hu/new3/konyvtar/bookshop/EIB%20lending%20for%20health.pdf>

2015, with a gradual roll-out across the EU28 Member States and Erasmus+ programme countries¹⁵.

The Erasmus+ Master Loan Guarantee aims to offer loans to students to improve their access to finance in order to enable them to take a Master's Degree in another Erasmus+ programme country. This should contribute to tackling skills gaps in Europe.

The loans are not provided directly by EIF, but rather by participating banks and student loan agencies which will be selected by EIF during the programme. Currently the scheme is available through banks in Spain and France - MicroBank (the social bank of la Caixa) in Spain was the first bank to offer Erasmus+ Master Loans in 2015. From June 2016, Banque Populaire and Caisse d'Epargne from France (both part of the BPCE group) started providing EU-guaranteed Erasmus+ Master loans.

Through Erasmus+ Master Loan Guarantee, EIF provides credit risk cover on portfolios of student loans to the selected financial intermediaries. By sharing the risk, EIF allows these financial intermediaries to develop a portfolio of new student loans, providing loans to more students than would be provided otherwise.

The loans to be provided:¹⁶

Are up to 12,000 EUR for a 1-year Master programme and up to 18,000 EUR for an up to 2-year Master;

Can cover both living and tuition costs in any of the 33 Erasmus+ Programme Countries;

Include no collateral by student or parents, favourable interest rate and favourable pay-back terms;

Are aimed at students who have been accepted for a full Master's study programme in a country other than where they obtained the qualification granting access to that Master and other than where they reside.

The EU budget allocation of €517m for guarantees (managed by EIF) is expected to release up to €3.2 billion in loans from the banking sector. It is expected that up to 200,000 students could be supported to do their Master's studies in another Erasmus+ Programme Country by 2020.

In the primary and secondary schools sector, the EIB has recently approved a 25-year loan of €130m to the London Borough of Croydon to support building and upgrading of 38 schools, with EIB loans also financing part of the UK Government's Priority Schools Building programme¹⁷.

A2.2 Current experience of Investment Platforms

Existing investment platforms include:

- International EU platforms, the Marguerite infrastructure fund¹⁸, the European Energy Efficiency Fund (EEEF)¹⁹, and the European Fund for Southeast Europe (EFSE)²⁰.
- National platforms within Member States including Spanish State Fund for Ports Accessibility²¹ and two French platforms: Fund for industrial project companies²² and Nord Pas De Calais THD²³.

¹⁵ Iceland, Liechtenstein, Norway, the former Yugoslav Republic of Macedonia and Turkey

¹⁶ http://www.eif.org/what_we_do/guarantees/erasmus+master-loan-guarantee-facility/erasmus-programme-guide-for-2016.pdf

¹⁷ <http://www.publicfinance.co.uk/news/2015/09/european-investment-bank-funds-school-upgrades-croydon>

¹⁸ <http://www.marguerite.com/>

¹⁹ <http://www.eeef.lu/>

²⁰ <http://www.efse.lu/>

²¹ <http://www.eib.org/projects/pipeline/2015/20150115.htm>

- Outside of the EU, InfraMed²⁴.

Based on our review, the main focus of investment platforms has been energy efficiency, renewable energy and transport infrastructure projects in the EU28 or at national level. Most Platforms have a sectoral focus as well as a regional one - although the European Fund for Southeast Europe is an example of a thematic support facility for SMEs and households.

National promotional banks Cassa Depositi e Prestiti, Caisse des Depots and KfW are prominent partners, providing both capital investment through respective platforms and in some cases advisory services to project partners. In some cases, funds have opted to rely on private sector financial institutions for fund management expertise. In 3 of the 4 cases, the initial seed capital invested by the EIB was at a similar level to that of the other sponsors. The exception is the Fund for Southeast Europe, where the EIB did not act as a sponsor.

The InfraMed model is an example of a partnership between financial institutions in more developed markets and those in emerging markets - investment expertise in the former is used to support development of emerging markets.

A2.3 The need to find projects that provide satisfactory returns to the respective stakeholders

A core challenge of the study is to identify feasible projects. Feasibility depends on finding the intersection where all stakeholders can meet their expectations or requirements.

Investors expect an attractive return in due time at limited risks (the higher the risk the higher the rate of return). This requires:

- that the projects can provide sufficient or, at least, convincing evidence that the returns are realistic
- the risk for the investor should be minimised, e.g. through guarantees or other safeguards from the fund or other stakeholder (philanthropy, states etc.)²⁵
- that the full set of benefits is identified. For example, addressing children from socially disadvantaged families might allow (single parent) mothers to enter into employment or work longer hours per week, may reduce the need for educational support (advice/guidance to parents, foster care etc.)²⁶ Eventually, the time horizon should be limited, e.g. to not more than ten years, possibly even less.
- **That philanthropic** agents are convinced that the project brings the expected results and may face the risk of having to be willing to step in to safeguard intended outcomes.

In the case where projects are financed by public spending the expected fiscal benefits (savings as well as higher revenues) need to be accounted properly from the very beginning and linked to satisfactory evidence.²⁷

²² <http://www.eib.org/projects/pipeline/2015/20150435.htm>

²³ <http://www.eib.org/projects/pipeline/2014/20140293.htm>

²⁴ <http://inframed.com/investment-strategy/>

²⁵ In some US-models, philanthropic organisations acted as safeguards (Rangan/Chase 2015) - Rangan, V. Kasturi, Lisa A. Chase (2015), The Payoff of Pay-for-Success, Stanford Social Innovation Review, Fall 2015 (www.ssireview.org).

²⁶ With regard to ECEC such benefits are important as they arrive in the short-run and – if considering Germany, for example – are linked to fiscal benefits of the municipalities.

²⁷ When discussing a proposal for an Education Investment Fund (Dohmen 2015) the level of returns and the ways to evidence them has been a major issue of concern. This in turn raises

Example of a CBA of fiscal benefits of educational improvement

For example, a recent cost-benefits-analysis on the fiscal effects of quality improvements in the German early childhood education and care (ECEC) system clearly indicated that the national social security system, and in particular the Employment Agency, is the major beneficiary, generating around two thirds of all fiscal benefits (Dohmen 2016). The remaining one third is attributed to the public budget, among which the federal level, though contributing only very little to the funding of early child care and education, is the largest beneficiary. In contrast, states and local communities, while bearing the largest proportion of funding, receive the lowest share. Consequently, relying on the benefits of the local communities would minimize returns, rather than generating attractive rates of return for investors. This is obviously a major bottleneck of some social impact bonds in Germany. However, this is not to say that early childcare and education should not be addressed through social impact bonds

The **beneficiaries** (e.g. ministries of finance at national, regional and local level as well as the national social security system, if applicable) must be willing – and legally entitled²⁸ – to appropriate a share of their fiscal return and sign a contract. Each single beneficiary, who is not willing to enter this agreement, reduces the rate of return.²⁹ Furthermore, **governments** would have to support the idea politically from the beginning. In this regard the various perceptions and expectations of the ministries and political parties involved play an important role in determining the feasibility of a project. The same applies to **employer federations and trade unions**.

National Promotional Banks, based on the experience of other Platforms are especially important and should where they operate, be interested and entitled to step in. This is also a question of preparedness to support innovative and unusual ideas which conventional commercial banks might not have.

EU/EIB participation would have to meet their formal requirements, established in rules and/or regulations, including the levels of additionality that are required (which in the context of the IPE and use of Platforms may be particularly critical barrier if the test is set too high). A lower test could be to consider that new ideas, i.e. something that has not yet been employed in the country or sector of education, are considered to be additional.

the need for further studies of the outcomes achieved by investment in different education sub-sectors and related social and economic contexts

²⁸ A crucial aspect in this regard is whether such appropriations are considered debt or not e.g. if the state guarantees a certain share of returns. At least, in Germany, there is a political debate on so-called "shadow budgets" where credits are taken outside of the state budget, but by semi-governmental agencies etc. If such an appropriation is considered debt, the criteria for the debt limits are to be taken into account.

²⁹ There is a free rider problem, if more than one beneficiary is involved.

Annex 3 Background data and analysis

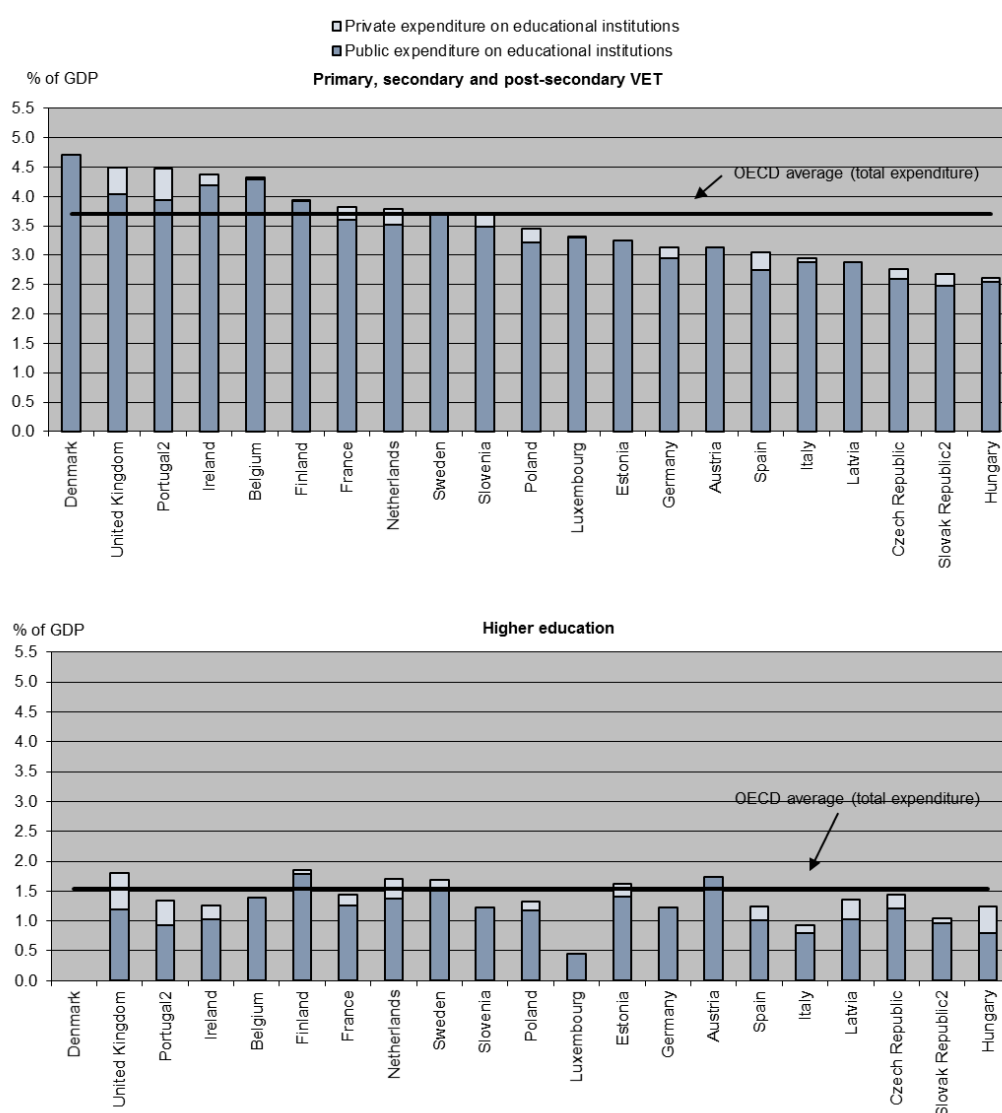
A3.1 Expenditure by Member State in education and training

A3.1.1 Total annual expenditure

Total annual expenditure in the EU on education and training amounts to approximately € 811 billion in 2014.³⁰ Note that this number is likely to slightly underestimate the overall expenditure as data on certain types of expenditures (such as private expenditure) is incomplete or completely missing.

Data from OECD suggests significant variation between Member States in expenditure on primary and secondary education as a proportion of GDP – ranging from 2.6% in Hungary to 4.7% in Denmark (see Figure 6). The corresponding data for higher education also shows variation, with spending as a proportion of GDP ranging from 0.9% in Italy to 1.8% in UK.

Figure 6. Expenditure on primary and secondary education (upper chart), and higher education (lower chart) as a proportion of GDP



³⁰ Based on amalgamation of data from Eurostat (educ_uoe_fine01 and gov_10a_exp), OECD 2015 'Education at a Glance'. The main reference year is 2014, although due to limits to data availability, private expenditure is approximated by data from 2012 and 2013.

Source: Chart B2.2, OECD 2015 'Education at a Glance', available at <http://www.oecd.org/education/education-at-a-glance-19991487.htm>

Total annual public and private sector expenditure

Total annual private sector expenditure in the EU on education and training is estimated at € 122 billion (in 2013)³¹ – it can be roughly estimated that about a half was spent on primary/secondary education and the other half on post-secondary VET and higher education. Note that this number is likely to underestimate the overall private expenditure as data for certain countries (Croatia, Denmark, Greece, Lithuania) are missing and for several others are incomplete.

Private sector contributions are comparatively small for primary / secondary education across all Member States. However, they are significant for higher education in a number of countries (e.g. UK, Portugal, Netherlands - Figure 6). In future, assuming public sector budgets for higher education come under further pressure – this suggests the potential for a more prominent role for private funding.

Total annual capital and operating expenditure

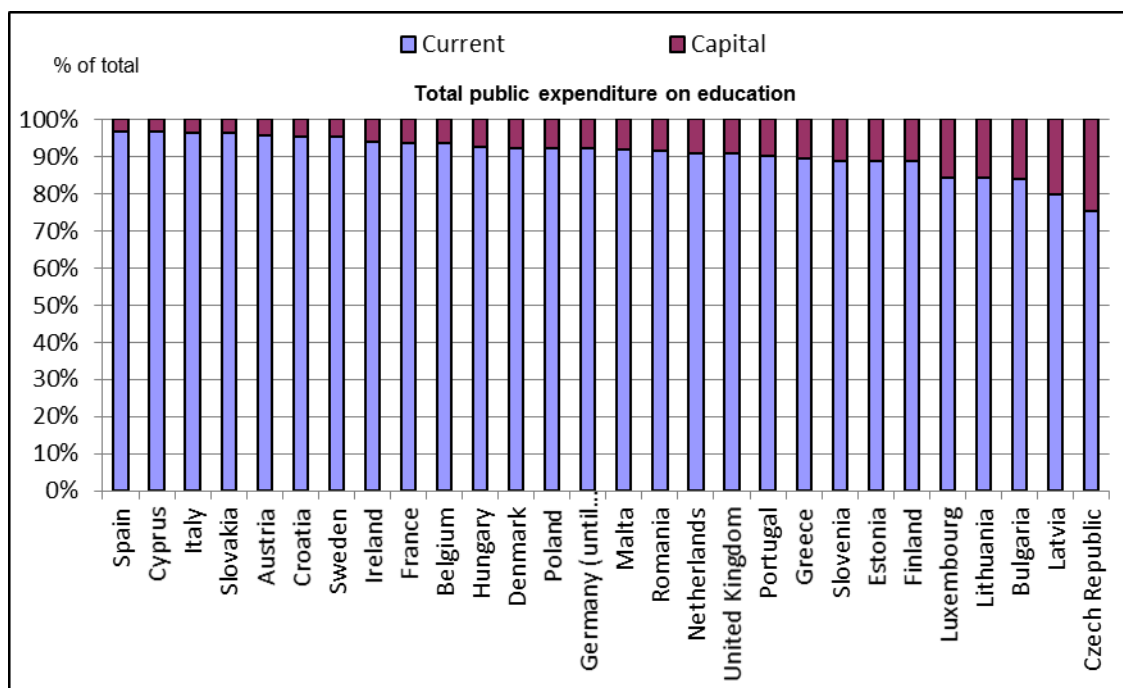
Total EU current expenditures are much larger than capital expenditures in the EU. For public expenditures, the current EU expenditures can be estimated approximately at €638 billion, whereas capital expenditure is estimated to be only €51 billion (about 7% of the total EU expenditure on education).³² Breakdown of private expenditures into operating and capital expenditures is not available.

The Eurydice and OECD data indicates that capital expenditure represents a small proportion of total expenditure on education in all Member States, as compared to current expenditure (see Figure 7). This suggests there is scope for directing additional private finance, not only towards infrastructure / hardware, but also towards current expenditure, although it may be more difficult to monetise the benefits in the form of incentives for private investment. As a result social investment may have a greater role to play.

³¹ Based on amalgamation of data from Eurostat (educ_uae_fine01), OECD 2015 'Education at a Glance'. The main reference year is 2013, although due to limits to data availability, some expenditure is approximated by data from 2012.

³² Based on amalgamation of Eurydice national factsheets on Education Budgets in Europe for 2015 and data from OECD 2015 'Education at a Glance'. Note that data for Slovakia, Croatia and Lithuania is missing.

Figure 7. Capital versus current expenditure on education in 2014



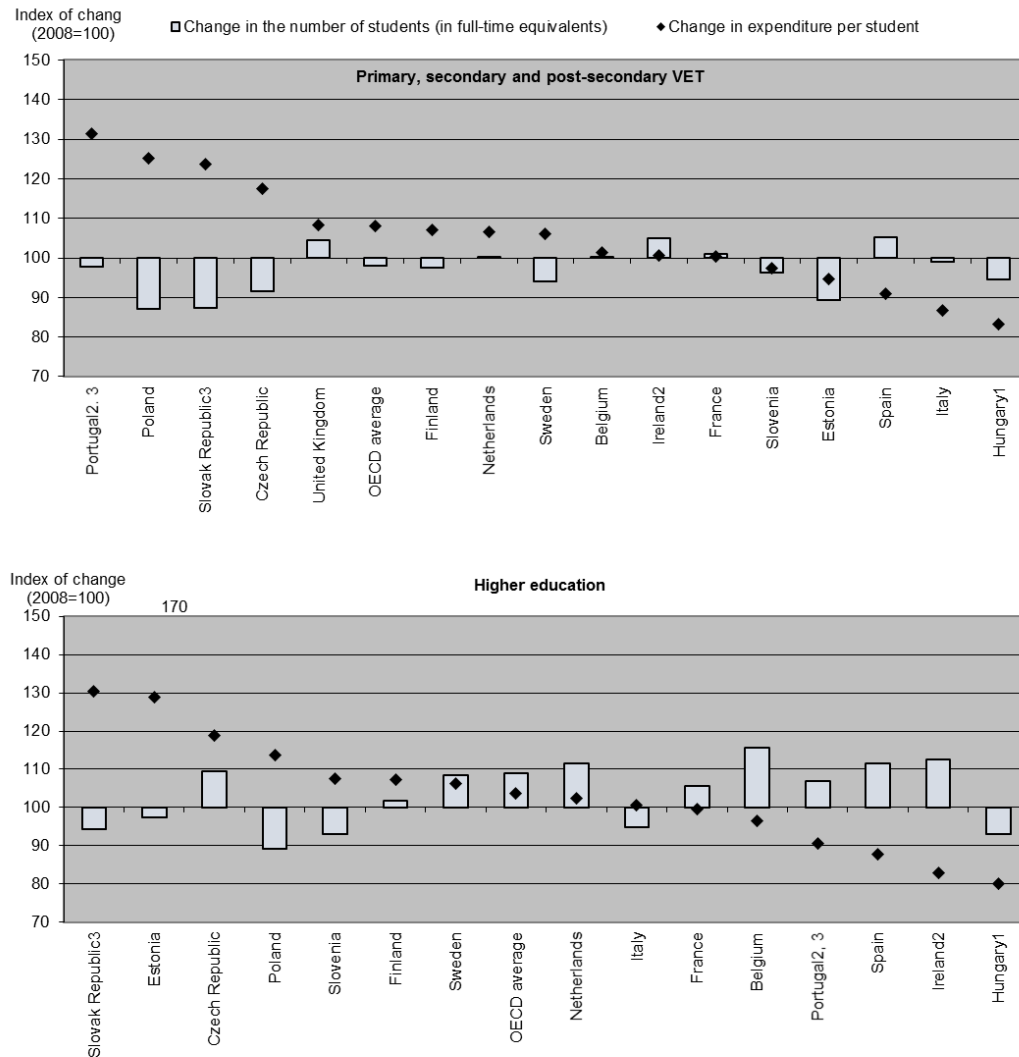
Source: Eurostat data (gov_10a_exp):

http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=gov_10a_exp&lang=en

A3.1.2 Changes in expenditure on education and training

In the wake of the global economic downturn, a number of Member States have reduced spending on education. Reductions in spending per student have been severe in Estonia, Spain, Italy and Hungary for primary / secondary education, and in Portugal, Ireland, Spain and Hungary for higher education (see Figure 8). Investment needs might be especially high in these countries, suggesting opportunities to incentivise private investment if revenue streams can be mobilised.

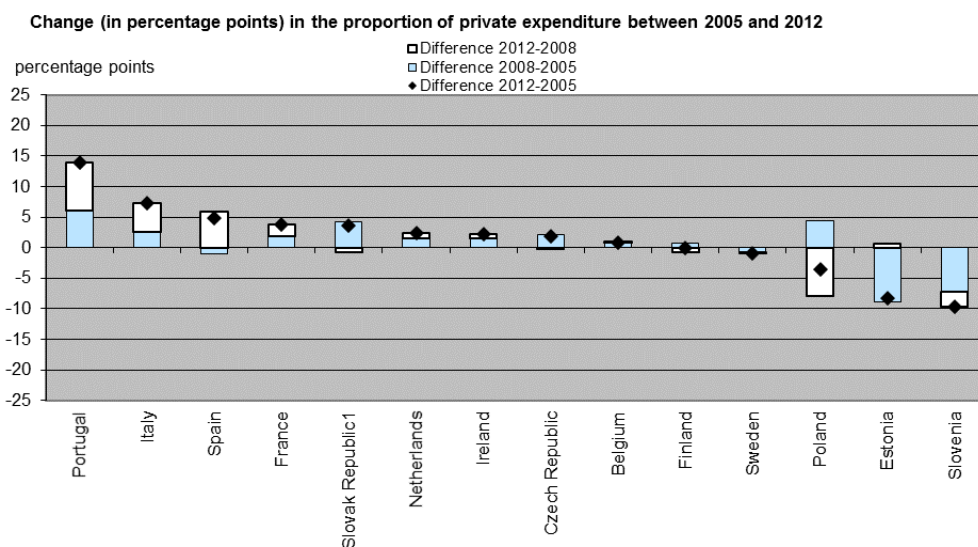
Figure 8. Changes in the number of students, and expenditure on educational institutions per student (2012 relative to 2008) – primary and secondary education (top chart) and higher education (bottom chart)



Source: Chart B1.5, OECD 2015 'Education at a Glance', available at <http://www.oecd.org/education/education-at-a-glance-19991487.htm>

In a number of countries, the proportion of private expenditure in total expenditure on education markedly increased – notably in the south European countries including Portugal Italy and Spain (Figure 9). This suggests that private sector is becoming an increasingly important source for education funding in these countries.

Figure 9. Change, in percentage points, in the share of private expenditure in total expenditures between 2005 and 2012



Source: Chart B3.3, OECD 2015 'Education at a Glance', available at <http://www.oecd.org/education/education-at-a-glance-19991487.htm>

A3.2 EU investment in education and training

A3.2.1 EU Structural and Investment Funds (ESI) for education and training

A3.2.1.1 Links between ESI and EFSI

The legal bases of both ESI and EFSI allow for contributions to support each other's objectives. Their combination is possible through investment platforms, although the implementation process needs to respect applicable rules laid down in the CPR Regulation (for ERDF/ESF) and the EFSI Regulation. State aid rules also apply on a case-by-case basis.

The Commission is currently working on concrete technical solutions to combine ESI financing with EFSI. Firstly, EFSI could provide support to financial instruments established at national or regional level, potentially in addition to support by ESI. Secondly, ESI could directly support project development and implementation (in line with the contributing ESI programme rules and applicable eligibility criteria)³³.

Alternatively, ESI programmes could contribute to an Investment Platform – with resources managed together but expected to cover distinct compartments in order to comply with ESI legal provisions, Regulation 1303/2013. In such case, EIB/EIF, with EFSI support, would be expected to contribute to the Investment Platform whilst the ESI programme contribution would come through a financial instrument.

A3.2.1.2 Objectives and priorities in ESIF

Investing in education, training and vocational training for skills and lifelong learning (TO10) is one of the 11 thematic objectives shared by all the ESI Funds. The thematic objective is:

- *Investing in education, training and vocational training for skills and lifelong learning*

The ERDF investment priority for TO10 is as follows:

³³ See guidance:

http://ec.europa.eu/regional_policy/sources/thefunds/fin_inst/pdf/efsi_esif_compl_en.pdf

- *'investing in education, training and vocational training for skills and lifelong learning by developing education and training infrastructure'*

TO10 can also be supported through the European Social Fund (ESF).

Before ESI Funds can be used to support local, regional or national priorities, certain ex ante conditionalities need to be fulfilled. For TO10 the relevant ex ante conditionalities are as follows (and apply to all funds):

- *10.1: Early school leaving: The existence of a strategic policy framework to reduce early school leaving (ESL) within the limits of Article 165 TFEU.*
- *10.2: Higher education: the existence of a national or regional strategic policy framework for increasing tertiary education attainment, quality and efficiency within the limits of Article 165 TFEU*
- *10.3: Lifelong learning (LL): The existence of a national and/or regional strategic policy framework for lifelong learning within the limits of Article 165 TFEU*
- *10.4: The existence of a national or regional strategic policy framework for increasing the quality and efficiency of VET systems within the limits of Article 165 TFEU.*

The EC guidance fiche on inclusive growth in higher education (2014-2020)³⁴ highlights investments in educational infrastructure as one of the areas that should be prioritised and strengthened through the ERDF, with funding ideally directed towards:

- Supporting modernisation of teaching facilities;
- Infrastructure to support improvements in guidance and counselling provided to prospective students;
- Infrastructure to support enhanced governance and management within educational institutions;
- Expanding student accommodation facilities with a view to widening access; and
- Improving the accessibility of existing premises.

A3.2.1.3 Review of current investment responses (ERDF / Cohesion Fund)

The share of ERDF funds allocated to Theme 10, for the period 2014-20 varies between MS, as shown in Figure 10- Austria, Portugal, Denmark and the UK have allocated the greatest share of their ERDF budget to education and training investment. Absolute levels of spending planned on ERDF Theme 10 over this period (Figure 11) are highest in Lithuania (EUR 7bn) and Latvia (EUR 5.4bn).

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http://ec.europa.eu/regional_policy/sources/docgener/informat/2014/guidance_higher_education.pdf

Figure 10. Percentage of MS' ERDF spending allocated to Theme 10, 2014-2020, by MS ³⁵

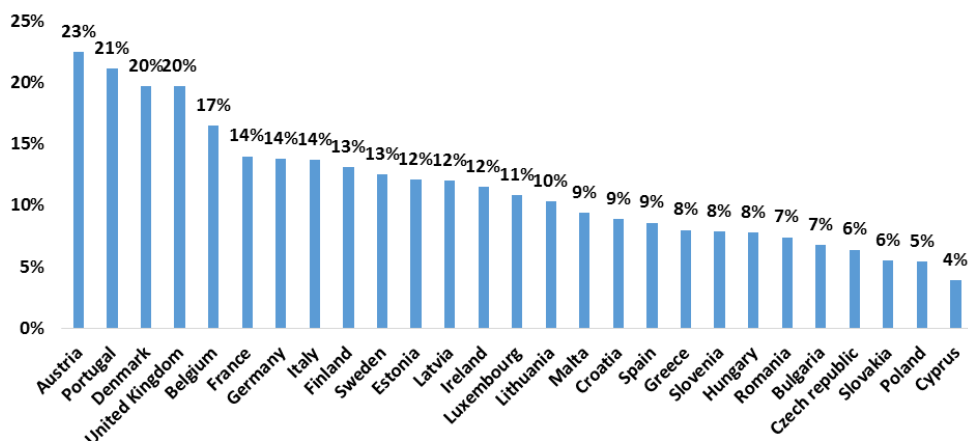
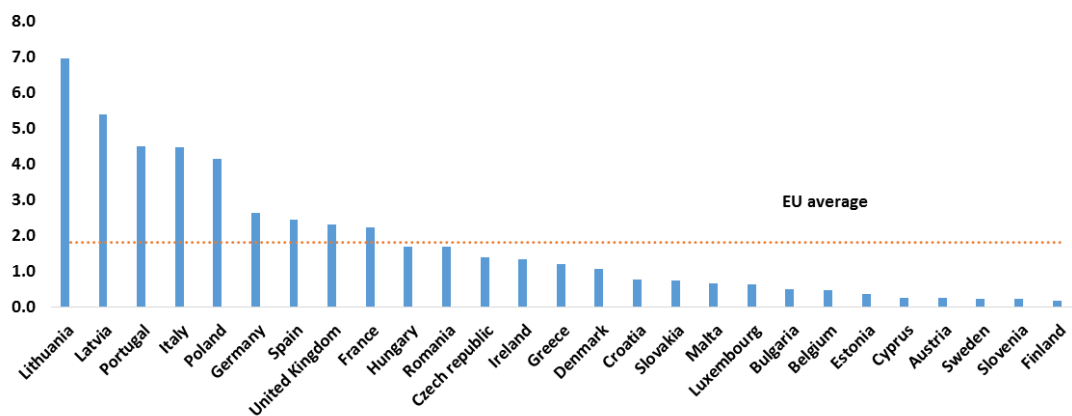


Figure 11. Spending on ERDF Theme 10 (EUR billions), 2014-2020, by MS ³⁶



³⁵ Source http://ec.europa.eu/regional_policy/en/policy/themes/education-training/

³⁶ ibid

Annex 4 Review of public-private partnerships (PPP)

A4.1 General Introduction

After, 20 years or more development, 80-90 countries worldwide are employing the public-private partnership (PPP) Model, as an alternative to central government funding, for capital investment in assets for the delivery of public services, some with more success than others.

Much of the initial development of the mechanism was developed in the UK in the post-Thatcher years, and indeed in the UK PPP deals are still often termed as "PFI" (Private Finance Initiative), but the distinctions between acronyms and types are often blurred. Other countries now use different acronyms, such as "PPS" in The Netherlands, "P3" or "3P" in North America, and "PSP" in S. E. Asia. Generically, all these structures, however, are "PPP". Not only has the PPP concept taken a hold in developed economies, but also in emerging markets, sometimes with negative effects.

After 20-25 years of global experience of the mechanism, one can arrive at three distinct general conclusions:-

- Infrastructure PPP deals are not "a free lunch". Like a credit card, they allow the beneficiary, i.e. government, - or their taxpayers, - to pay for the investment in public service assets at a later date. Further, if so structured that the risks lie with the private partner, PPP-type transactions can be kept "off balance sheet" for government, outside the watchful eyes of regulators (e.g. Eurostat) and the IMF. Not surprisingly and on occasion, some governments have overspent on their "PPP credit card".
- In the EU, the international accounting standards (ESA95 (2010)) require that both the construction/completion risk AND the demand or "availability" risk has to lie with the private sector concessionaire, or licensee, for the PPP to be deemed "off balance sheet" for the host government. Further, in the last few years Eurostat has clarified the interpretation of risk transfer, particularly for those PPP's with payments made against "availability", which had been originally deemed off-balance sheet, such that many of these PPP transactions have now been brought back into government accounts by many (prudent) governments; and
- Those countries, which have been using the PPP mechanism as one option for investing in public service assets and have achieved the greatest success, have been those nations with a long-term local capital market, or alternatively have an indigenous raw material, e.g. oil or gas, which they can export for hard currency revenues, thereby providing a foreign exchange hedge against revaluations or devaluations of the domestic currency versus world markets. Within the Eurozone or Sterling area, this may be no problem, as long-term local capital can be raised to finance the investment, with revenues, and, therefore, repayments in local currency matching out any forex risk. However, in some Member States outside the Eurozone, this may not be the case, and taken over a 20-30 year time horizon, the typical period for a PPP concession, such risk may be quite significant, to the extent of destroying financial viability of the PPP venture in some circumstances.

In addition to the above, experience has shown that:-

- PPP-type deals are contractually complex, requiring specialist expertise to prepare and assemble, which in turn results in higher than normal up-front costs; and
- Hence, PPP's take twice as long and are twice as costly to package as conventional government or publicly-funded projects. Much of this is part due to the care and attention to detail that practitioners have to apply and the time

taken by private financiers to undertake their due diligence before committing funds.

Hence, PPP is not a panacea. It represents, however, an alternative funding mechanism for investment in public service assets.

The above issues apart, there are also some additional features of PPP's, which decision-makers should note when deciding whether to use PPP or conventional government financing for public asset investment:-

- Using private, as opposed to public, capital resources may encourage innovation in design, construction, operations and service delivery;
 - Under PPP, the concessionaire will not get paid unless the asset is built to time, cost and specification and the service is delivered. Hence, a private concessionaire will ensure that the assets, once built, are well maintained and 'fit for purpose'. Historical evidence shows that on many occasions and over the equivalent long-term, e.g. 25-30 years, public authorities may be less than perfect in maintaining the condition of their assets, not least if their budgets get cut due political decisions, etc.;
 - In this context, it should also be remembered that at the end of the PPP concession the assets have to be returned to the state in the condition in which they were built, so there will be an additional incentive for the PPP concessionaire to maintain the assets accordingly;
- PPPs introduce an element of inflexibility, which can have negative impacts. The specification of the underlying service to be delivered by the assets is determined and contractually agreed at the outset. In the first instance, it may be quite difficult for the public PPP sponsors to define clearly and precisely the output specification they seek and require.

Secondly, over 25-30 years period for a PPP concession the output required may change, not least to manage increased demand, e.g. more students in a school. Such changes may, therefore, require changes to the output specification of a PPP concession, and in such negotiations the PPP concessionaire will always have the commercial advantage over the PPP grantor, who will be reluctant to withdraw the licence for sub-standard performance, as that will entail liquidated damages, and not least finding an alternative resource to deliver the service.

In this context, it should also be remembered that lenders, - which usually represent 80-90% of the funding for a (school) PPP, - will take security over the PPP assets, until their loan is fully repaid. Hence, lenders' approval should be sought under the loan conditions if there are to be significant changes to the PPP output specification. Normally, lenders will approve such changes, provided that such changes do not threaten the ability of the project to repay debt or increase the project risks unduly. In the context of education investment:

- PPP concessionaires will seek to make full use of the assets, as built, throughout the year. Many education establishments operate for only two-thirds, or three-quarters, of the year; for the balance of the year students and staff may be on holiday.
- Under PPP, the concessionaire may be much more likely to arrange and use the assets, for conferences, seminars, sports events, etc., which can be to the general public benefit, as well as provide an alternative source of revenue to offset the costs paid during the academic year.

Finally, when PPP concessions fail and do not achieve performance specification, they can be costly and time-consuming to terminate or re-negotiate. The underlying framework of PPP is complex, as mentioned earlier, so any changes or termination to the legal framework entails expensive lawyers, etc. to unravel and resolve disputes.

Hence, each specific public service asset investment needs to be assessed against a range of criteria as above, and a Value for Money judgment made as to whether public or private (PPP) financing resources should be applied for each specific investment opportunity.

A4.2 PPP's in the Education Sector

Many of the projects in this sector comprise accommodation in some form, e.g. schools, colleges, student accommodation. Hence, the private sector sponsors are building an accommodation asset and making it "available" for government to use it in some way by state-employed staff. The technical, construction and operational risks generally are low, and many private companies have experience of building such accommodation and managing the facilities.

The payment regimes are invariably based on an "availability", or 'unitary' payment regime, which today have become well established. There are many precedents to follow. Indeed, if one reviews the 800-900 PPP-type (PFI) deals undertaken in the UK since 1995, over the first 10 years, i.e. until 2005, the majority implemented were "accommodation" PPP's, i.e. schools, government and municipal offices, fire/police stations, law courts, etc.. On reflection, given the low construction and operational risks associated with such sectors, this conclusion is not surprising.

A4.3 The United Kingdom Experience

A4.3.1 Revision to the UK PPP Model

After the Financial Crisis of 2008-9, the PPP/PFI markets underwent some adjustment. Long-term bank funding was not available, and, where it was, loan conditions included PERM mechanisms to encourage PPP concessionaires to re-finance their bank debt after, say, 8-9 years, - with the risk of not being able to re-finance at such dates remaining with the lender, - and/or debt service triggers, which after a specific date used post debt service surpluses to repay remaining debt early rather than pay dividends to shareholders.

Furthermore, the experience of some public sector sponsors of PFI/PPP deals, particularly in PFI hospitals, showed that the costs of PFI were turning out to be more than had been originally anticipated. The reasons for this were largely threefold:

1. the UK Government undertakes the comparison of PPP versus conventional funding using assumptions expressed in 'real' terms (i.e. excluding inflation, cost of funding, etc., as per "The Green Book" published by HM Treasury) as opposed to 'nominal terms in the Value for Money assessment. This methodology can lead to an underestimation of the PPP Availability payments to be made. [NB other EU governments do not seemingly employ the same analytical methodology];
2. The discount rate applied by HM Treasury in The Green Book was too high, by a margin of 2-3%, which favoured the PPP option versus conventional funding; and
3. Some PPP concessionaires "overcharged" for some operational tasks to be undertaken under their PPP contract.

The result was a review and reform of the whole UK PFI/PPP mechanism in 2012-13, now known as "PF2". The key elements of PF2 are:-

- Updated template for PPP contracts;
- Government may take a minority shareholding in a PPP;
- PPP projects were to be less leveraged (i.e. more equity), the theory being that this would make such projects more attractive to the institutional bond market to participate;
- Funding competitions to be introduced for a portion of the equity;

- Tighter control of on/off balance sheet issues [many earlier PFI deals were brought back on-balance sheet];
- Greater support by Government for increased project costs due to unforeseen events;
- 'Soft' services, such as cleaning and catering, to be removed from PPP concession agreements;
- The maximum tendering process for PPP projects to be 18 months;
- PPP shareholders will have to publish annual equity returns; and
- The Government will publish financial details of all PPPs where Government holds an equity stake.

A4.3.2 Schools

To date, the UK Government has undertaken more than 200 PPP-type deals in the education sector, most of which have been for schools. A typical example is shown in the box below.

Glasgow Schools PPP, Year 2000

This 30 year PPP-type concession was to rehabilitate 29 schools in Glasgow, Scotland. Of the 29, 17 were new, to-be-built schools, 10 on existing school sites, 2 on new sites.

The cost was £225mn, plus £15mn for IT equipment, and the concessionaire comprised a consortium of a construction contractor (Miller), facilities management company (Amey) and a financial institution (Halifax / Bk. of Scotland).

Payments to the concessionaire were based on "availability" regime, against criteria such as: maintenance, cleanliness and temperature of classrooms and school facilities, etc.

The funding was highly leveraged (87% debt/13% equity) supported by a 27 year long-term bank loans³⁷ provided by Halifax / Bank of Scotland (which became Lloyds Bank) and the EIB. Halifax Private Equity was also 49% shareholder in the PPP special purpose company.

Features to Note:

- if funded individually, some of these school projects would not have met the threshold, which allows the use of PPP-type private financing to be cost-effective. Hence, the use of PPP to fund a portfolio of like projects;
- students are only at the schools for 70% of the year. The schools were, therefore, made available for use by third parties outside school terms, providing a more economic out-turn for the concessionaire and sponsors;
- there was also spare land which the schools did not use or need. This land was passed to the PPP concessionaire for residential development, adding to investor returns;
- 600 municipality-employed staff transferred their employment to the PPP concessionaire company under TUPE arrangements, - UK regulations, which protect employee rights and benefits under such transfer.

Schools built and operated by the private sector can have some unintended consequences:-

- As private sector projects, financiers will expect to have the assets commercially insured. Many public and municipal authorities may not insure their assets. Under such insurance, classrooms may have to have installed fire

³⁷ This was pre-the Financial Crisis

sprinklers. These can represent good targets for bored students to throw missiles and set-off in class. The additional insurance risks had to be factored into the Availability payments.

- Private sector sponsors of schools will wish to maximize revenues. Hence, in the early days of PPP, many such schools installed vending machines, under contract with food suppliers, for chocolate, soft drinks, etc.

Later, the national health authorities noted that too many students were generally somewhat obese. Vending machines were banned accordingly.

However, as this constraint, and resultant contract change, had not been foreseen at the outset under the PPP Concession Agreement, the public authorities were forced to pay some compensation to the PPP concessionaire for lost income, as a result.

With PF2, - and this is in part due to changes in how UK municipalities are funded by central Government for PFI-type projects, - whereas many initial PFI proposals were specific to particular schools and sponsored by local education authorities, the process is now more centralized in England & Wales, with resources channelled by the Education Funding Agency (part of the Dept. of Education) via regional PFI developments covering a number of schools, packaged as one, as for the Glasgow Schools PPP, as described above.

In Scotland, where Government responsibility for investment in education is devolved, a variant on PFI has been developed.

The Scottish Futures Trust, set up as an independent company by the Scottish Government to deliver Value for Money in infrastructure and social investment in Scotland, have developed the "NPD" (Non-Profit Distribution) PPP Model to be applied on publicly-funded school and college developments.

In such projects, which has now been applied on a number of schools (e.g. Argyll & Bute NPD, covering investment in 10 schools or educational establishments with a capital costs of £128mn.) and colleges (Ayr, Glasgow & Fife), the underlying funding structure comprises, say, 90% debt and 10% subordinated debt, with no equity. In other words, the holders of the sub-debt, - which many may interpret as a form of equity, - receive a fixed return via sub-debt interest payments on their investment. No dividends are payable. Any surplus generated is to be paid to a third party, such as a charity.

The key objective of such structure is to keep the PPP funding 'off' Government balance sheet, whilst harnessing private capital. Eurostat, who provide EU governments with opinions as to the balance sheet status of such transactions, have opined that, without the possibility of any excess profit going to the PPP shareholders, the full risk transfer has not taken place, i.e. the structure should be 'on' balance sheet.

Hence, SFT have had to make adjustments so that the PPP shareholders receive the bulk, say 80%, of any surplus profits generated to satisfy the 'off' balance sheet criterion.

Overall, the interpretation of the guidelines on PPP balance sheet issues remains somewhat imprecise and open to manipulation, requiring that Eurostat be consulted on a case-by-case basis for any prospective PPP deal in the sector.

Apart from the above, SFT give priority to the Value for Money assessment of any new school/college investment when considering the NPD Model. With interest rates being low and also with the availability of EIB loans, similarly at low cost, the demand for additional EU support for funding in this sector is effectively non-existent at present.

As for England & Wales, Scotland has collected together groups of projects, and have awarded, following a competitive bidding process, "Hub" framework, NPD-type PPP contracts on a regional basis, to a number of concessionaires against a program of

investments to be made in schools over the coming years, with, say, a min. capital cost value of £10mn for each project. This has allowed, to date, innovations and simplifications in the delivery of public educational services, which might not otherwise be the case. For example, only 'hard' facilities management costs are included as part of the PPP. However, as always with PPP-type deals, it will be some years before a conclusive opinion can be given as to the actual Value for Money of such Hub deals in the long-term.

A4.3.3 Universities

Most UK universities are set up as charities and they receive income from:

- (a) Funding Council grants, e.g. Higher Education Funding Council for England (HEFCE);
- (b) student fees and support grants;
- (c) research grants and contracts with industry, etc.;
- (d) endowments; and
- (e) miscellaneous operating income.

As to how much HEFCE will award any particular university will depend on the sustainability and assessment of their forecast expenditures, which are reviewed annually. Included in that assessment will also be criteria based on student numbers, academic record, etc.

With respect to the funding of capital expenditure, it will be for each university to make its own arrangements, either seeking long-term loans using existing assets, e.g. land and buildings, as security, or loans from EIB, or using PFI / PPP-type Model funding structures.

As to any control or regulation over such expenditure, no clear guidelines emerged following contact with HEFCE and Universities UK. As to what might happen when a university over-extends itself financially is an unknown. In recent days, there has been some comment in the media that such events might arise earlier than expected, e.g. for UCL, London's current capital programme.

It is noteworthy, however, that in recent years capital funding at UK universities using internal cash or borrowing has increased significantly, e.g. 50% increase over last 5 years, whilst the use of capital grants has plateaued [ref. HEFCE Annual Report 2014-15].

As for UK schools, there appears to be no obvious funding gap which could be met by an additional EU Fund for Education.

A4.4 The Netherlands PPP Experience

The Netherlands programme for PPP investment has shadowed the UK experience in many ways, with some significant differences, albeit 10 years in arrears. As a result, their "hit" rate of PPP successes has been rather higher than the UK.

One of the reasons for that has been the methodology used by Government to determine Value for Money is based upon analysis of PPP versus conventional funding in 'nominal', as opposed to 'real' terms, as in The UK's Green Book. Hence, the Value for Money assessment has been more closely borne out by outcome costs.

Secondly, the process for this comparison of alternative funding mechanisms is seen as more independent than in the UK, as neither the project-sponsoring Ministry, nor the Ministry of Finance, has the final say. The Value for Money assessment is made to Parliament, thereby enhancing the likelihood of any proposal receiving broad public approval, if it is to proceed.

Another feature, which is different to PPPs in the UK, is the intervention by institutional pensions, or capital markets in the Netherlands in the provision of PPP

funding. The UK pensions market is highly fragmented, with many relatively small pension funds, which to date have not had neither the resource nor expertise to assess and invest in private sector infrastructure-type (i.e. PFI/PPP) investments.

In mainland Europe, France, Germany and the Netherlands, in particular, the pensions industry comprises some much larger pension funds, e.g. PGGM, the Netherlands state pension fund, where the capital available to invest is often 10 times that of their UK counterpart. They therefore have had the resource to undertake their own due diligence and they have also been creative in moulding the use of capital market funding (bonds) for PPP's to match the particular construction and completion risks of major infrastructure investments.

By way of example, one of the main drawbacks of using bonds, - which are attractive investments for pension fund investors, - for infrastructure projects, when the construction period may be 2-3 years, is that all the funding from a bond becomes available at issue date, whereas the project costs to be paid for out of the project's financing may be spread out over an extended period. Hence, any surplus funds not used, when the bonds are issued, have to be placed on deposit in a bank, - where deposit rates may be low, - until such time as it is required to cover costs. Hence, bond funding during construction can be financially inefficient. Loans are more flexible and cost-effective.

Hence, bonds, which quite often are available for longer periods than loans, are more effectively employed to re-finance debt once a project has reached completion and project risks usually lower.

One of the key principles of project financing is to ensure that all the project funding is available and committed at the outset of the construction phase. The problem arises, therefore, as to how to obtain commitments from bond investors to re-finance loans on project completion at the outset to a project, i.e. at the start of construction?

That problem, to date, remains largely unresolved. However, the closest resolution to this issue has been the re-financing of the €250mn N33 PPP Highway in the Netherlands in 2013, when the Dutch pension fund, APG, committed at the outset to buy out, i.e. re-finance, 70% of projects loans on completion. There is no reason why the same mechanism could not be applied to schools PPP's.

The PPP's undertaken to date in The Netherlands have been mainly in the transport infrastructure and flood defence sectors, with very few in education. One example has been the 1200 student, Montaigne Lyceum, a new secondary school sponsored by the Municipality of The Hague, and which reached Financial Close in 2004.

Overall, the transaction mirrors the UK PFI Model, known as "PPS" in Holland. Since then there have been mixed views as to the success of this project, with the complexity of the up-front negotiations with the concessionaire and the sponsor (school governors, municipality and Government) being cited as one reason for favouring conventional funding.

In conclusion, as for the UK, whether additional EU Funding, to complement domestic funding of PPP schools, is required seems doubtful.

A4.5 The German PPP Experience

Germany has been relatively 'new' to the PPP market, which might reflect the ready availability of federal/state funding in recent years for public asset construction. However, over the last 10-15 years, the PPP Model has been used in particular for roads and schools, paid for by Availability payments, e.g. the German "A" Model.

Again, the Models used follow the standard DBFO/M (Design, Build, Finance, Operate and Maintain) framework, albeit that in German the legal complexities faced by potential (international) developers may be formidable. The interfaces between federal and state agencies, state agencies and the municipalities, plus the difficulties with respect to land ownership for lenders to take security, can be a labyrinth to outsiders.

Hence, the number of PPPs to date in education has been limited, albeit, when undertaken, such PPPs have represented significant investments in value.

Two early examples (2003) were the Offenbach West and East Schools PPPs (43 and 49 schools respectively) with a total capital investment value of €780mn., and payments made to the concessionaires (Hochtief and SKE) against a fixed, annual, non-performance-related fee. Since then, Frankfurt, Nuremberg, Schwabisch Gmund, and Wilhelmshaven have all implemented schools PPPs, but no Value for Money assessment has been seen.

A4.6 The Spanish PPP Experience

Spain was relatively late in employing the PPP Model for investment in public service infrastructure. Indeed, it was only in 2007 that the relevant legal framework was enacted to allow private entities to deliver public services, for example, for social infrastructure.

In reality, since 2007 Spain (and the EU via ERDF and EIB) has committed significant sums to the implementation of PPP transport projects, e.g. highways and railways, stretching to the limit their "PPP credit card". It is understood, however, that Madrid Municipality has undertaken a PPP schools project some 10 years ago, but details are not available.

Given the status of Spain's PPP transport and social infrastructure and the Government's liabilities to service the funding raised to date for these projects, it is not clear that a new EC Fund contribution would be additional to funding already available to Spain via EIB.

Annex 5 Review of social investment bonds

A5.1 Potential role Social Investment - Experience from the UK

Another potentially significant source of investment that might be leveraged by EFSI and the use of Investment Platforms, is social investment. Social investment is the use of finance to achieve a social, as well as a financial return. The social investment market helps raise capital that might not be able to be secured from conventional investment sources, and helps investors find organisations that deliver them a social as well as a financial return.

A5.1.1 Social investment

ICF has worked extensively in the UK to assess and evaluate the scale and type of social investment taking place. Our analysis for the UK Centre for Business in Society³⁸, that the volume of social investments made by social investment finance intermediaries (SIFIs) in the UK is projected to be some 2,600 investments with a value of over £200 million of social investment in 2014/15. Future growth in supply depends on accessing new investor classes, notably high net worth individuals – some estimates suggest that in the UK these could supply £100m per year to social investment.

Our research also suggests considerable appetite for social investment in education and training. SIFIs were provided with a list of sectors, and asked which if any they were prepared to invest in – education was, alongside environment / green economy and community facilities, one of three sectors that SIFIs most frequently (76% of SIFIs) indicated they were willing to invest in.

Current examples of social investment programmes supporting education and training in the UK include:

- 4Children: a charity that delivers services to families with health, financial and social problems, through taking over or establishing Sure Start nurseries and Children's Centres. Income generated from public sector contracts and nursery fees will be used to repay a £700,000 social investment loan.³⁹
- Third Space: a technology platform connecting graduates and teachers from around the world to children in schools, providing one-to-one support. Income is generated through schools purchasing programmes for individual students. £750,000 of equity has been raised.⁴⁰
- 3SC Capitalise: Young people who have been excluded from school or have not achieved adequate GCSEs are given tailored support to help them make the transition from education to employment. £420,000 has been invested into a Social Impact Bond, with income generated via a 'payment by results' contract with UK Department for Work and Pensions - out of long-term savings to the exchequer from reducing youth unemployment.⁴¹

A5.1.2 Social Impact Bonds – Overview and Experience

Social Impact Bonds (SIBs, also known as 'pay for success bonds in the US) are one product within growing UK, US and international social investment markets. They can be seen as providing a funding structure for payment by results (PbR) contracts, where socially motivated investors provide upfront financing to service providers for interventions that target social outcomes (and which result in savings for the public

³⁸ The analysis is contained in an unpublished report, 'Growing the social investment market: update on SIFI social investment'

³⁹ See <http://www.bigsocietycapital.com/what-we-do/investor/case-studies/4-children>

⁴⁰ See <http://www.bigsocietycapital.com/what-we-do/investor/case-studies/third-space-learning>

⁴¹ See <http://www.bigsocietycapital.com/what-we-do/investor/case-studies/3sc-capitalise>

sector), with commissioners making payments based on the outcomes achieved. Consequently the SIB transfers the risk of poor performance from the commissioner (government or other authority) to the investor, with investors receiving a return for carrying this risk. SIBs can also promote innovation, as the focus is on outcomes rather than the detail of delivery.

The first SIB was launched in 2010 in the UK, and their use is increasing both nationally and internationally. As an emerging structure for financing public services, lessons from SIBs are only recently becoming available, with ICF's evaluation of the London Homelessness SIB being the first of a completed SIB investment. Although there are variations in SIB models, a typical structure usually involves an investor-owned Special Purpose Vehicle (SPV), which takes on the PbR contract and sub-contracts to a service provider. Social investors may include private funders, foundations, trusts, social banks or philanthropic investors, providing the finance for the set-up and delivery costs via the SPV. The SPV usually hosts a Performance Director or Board responsible for monitoring SDO performance. In this way, the risk in the PbR contract is transferred away from the provider, promoting the involvement of voluntary and community sector (VCS) organisations.

To date SIBs and associated PbR models in the UK and US have focused on interventions targeting the most disadvantaged groups in society. Specific examples include interventions for: offenders awaiting/released into the community (to help reduce recidivism), rough sleepers and homeless individuals; and preventative/early intervention services for children and families. A common theme is improving outcomes which, in turn, generate wider social outcomes and so create savings to the public purse (by reducing recidivism, lowering subsequent social costs to the state, etc.). While we are not aware of SIBs that have focused solely on education and training provision, many have an education or training component - for example to address limited basic and employability skills, and poor or redundant qualifications, which act as barriers to labour market participation and individuals' integration with, and contributions to, wider society.

While there is much interest across the EU in the potential use of SIB and PbR funding models to improve outcomes, there remains much to be learnt from the experience of early SIBs to inform future developments. Evidence from evaluation studies, completed or ongoing, suggests that a series of enablers and challenges exist to the wider development and use of SIBs, including:

- A lack of understanding amongst commissioners and providers of social investment and social investors;
- Difficulties and costs associated with developing and agreeing contractual arrangements that suit all parties – commissioner, investor and provider;
- The risk of the change in the wider public policy context may be a disincentive to investors;
- A perceived financial risk to providers, despite the SIB rationale of transferring risk to investors (although our own work has shown that providers do invest from their own funds);
- The lack of robust evidence to inform the design of interventions, or in some cases establish the scale of target group populations, making the investment more risky; and
- The transaction costs associated with SIB development (identified as high in early literature but expected to decrease as the market matures) remain high, which influences the scale of investment considered viable by investors.

PbR contracts are, however, used more widely, and mark a wider shift from paying for outputs under more traditional contract models to paying for outcomes through

greater efficiency and innovation in delivery. Here a series of key success factors for effective PbR design and implementation can be identified, including:

- Ensuring the outcomes upon which they are based are clear, quantifiable/measurable, and consider the timescales for achievement;
- Having a clearly defined target population for the intervention supported and to avoid 'creaming' – where attentions focus on the individuals easiest to engage and achieve outcomes for, so risking those in need remaining vulnerable; and

Ensuring there is a clear causal link between the intervention funded and the outcomes expected – to avoid deadweight (i.e. those who would have achieved the outcome in the absence of the intervention) – and that payments are not linked to factors outside the provider's control.

A5.1.3 Social investment projects for education

In summary the use of Pay for Success/ Pay by Results programmes and Social Impact Bonds for education have various limitations/challenges:

- Models are dedicated to rather small numbers, sometimes at relatively high costs; approaches require intensive effort to design, test and implement;
- Empirical evidence of programmes is often rather limited. Empirical education research in this direction has advanced only very recently, i.e. over the last 15 to 20 years and not yet been able to establish sufficient evidence in the sense that the concrete effect size can be established beyond the experience of a specific programme;
- Benefits are not easy to establish, in practice and require costly evaluation design, e.g. Randomly Controlled Trial (RCT);
- Investors are reluctant, because of limited empirical evidence; requiring applicable safeguards/guarantees, either through governments, philanthropy and/or other agencies;
- Not all relevant beneficiaries are involved, for example in the German "Eleven" project, only the local municipality was involved;
- There tends to be a focus on a single or very small number of institutions, rather than a system-level approach. The latter approach would allow for larger budgets and a comparative evaluation of the different approaches;
- There tends to be a focus on one single target (threshold). Payments to the investors are to be made only if a certain threshold of effects is reached or surmounted; only in this case will the specified basic amount be paid. This puts the full risk of failure on to the minor (secondary) investors (guarantors), which is, at least in the US, often philanthropic capital. A different approach could be to relate the payments to a certain percentage of the effects, whether they are small or large. The public purse benefits even if the full target is not reached;
- Proponents don't have full knowledge and understanding, either in relation to the financial functioning of the programme or the functioning of the education sector/system as well as other sectors, such as tax system, social security system etc. Furthermore, the level of understanding varies among the various stakeholders.

This overview suggests, firstly, that there is much room to manoeuvre and to build upon the available experience. The risk is (perceived) to be higher than for the other more conventional types of projects and suggests therefore, in general, they may have greater additionality. The role of the Investment Platform as a source of information, advice and guidance, in addition to the role as funding arrangement or hub for investors, would be especially important.

Annex 6 Detailed case studies

A6.1 Education Results Company/Education Investment Fund (Social Impact Facility) (Germany)

The project idea aims to support the enhancement of education quality through tailor-made pedagogy and services for disadvantaged groups. As very little experience is available with this kind of approach, guarantees and/or complementary funds from EFSI are required.

A6.1.1 Target Sector

The target sector depends on each single "project" and may cover early childhood education and care as well as school education or vocational education, but also cross-sectional approaches, such as, for example, provision of nursery schools to support single mothers entering the workforce, whereby additional support services might be offered to help mothers to overcome additional barriers.⁴²

A6.1.2 Capital (Infrastructure)

Infrastructure is not necessarily at the core of the project, although specific buildings may have to be built in order to "offer various services under one roof".

A6.1.3 Revenue (Additional Services / Lending facility)

Most of the "investment" concerns the provision of additional and tailor-made services and is thus recurrent expenses. It covers staff costs as well as other recurrent expenses.

A6.1.4 Investment context

A6.1.4.1 Government / Market failure leading to under-investment / public expenditure

In total, some 130bn Euro of public funds are planned to be spent in education in 2016. Of this amount, almost 26.5bn Euro are spent for early childhood education and care, 65bn Euro for school education (general education and school-based VET) and 30bn for higher education. Although education provision in ECEC and schools generally addresses all children and families, independent from their socio-economic background, in fact, several weaknesses and gaps can be identified, resulting in school drop-out, functional illiteracy (both is more valid for boys than girls) or prevent that, in particular, lone mothers can enter successfully into the labour market. In addition, various inflexibilities can be identified, affecting parents in fact in various situations.

For example, access to ECEC for children under the age of 3 years is focussing particularly on parents' employment situation (enabling mothers to re-enter the workforce as soon as possible after birth was one of the core arguments for expansion). Till today, the daily or weekly numbers of hours for day care depends particularly on parental employment needs, rather than educational needs of the children or because of socio-economic backgrounds; this is not only valid for under 3 year old children, but also for those between age 3 and school entry.

The problems more pronounced, again, when children enter the school system, as all-day school provision is still insufficient and much depending on the location (although expansion has been taking place over the last decade). Even the official definition of

⁴² Research on the barriers of "vulnerable groups" to enter into adult learning, for example, highlights that often a combination of reasons ("barriers") prevent their entry into learning programmes. In order to get these groups engaged and eventually support them to "get out of the trap" a combination of measures addressing their barriers are needed at the same time and provided by one single entity (independent from the question whether several legal regulations apply or not).

“all-day-schooling” highlights this as it refers to a provision that is available for three days per week only and does not refer to educational provision, but care, etc. Even if parents, and mothers, in particular, manage to enter into employment if their child is aged 3 to 5 years, insufficient provision of all-day-schools leads to severe problems in terms of availability and flexibility.

In addition, up to one third of children, for example, in Berlin, live in poverty; on average, this concerns one out of six children in Germany and a large number of lone mothers is, in fact, excluded from joining the workforce. Frequently, a number of factors are met at the same time: lowly education parents (mothers), long-term or frequent unemployment (or non-participation in the labour force, not covered by unemployment rates⁴³). The barriers these groups face to enter into training and/or employment are manifold and complex and not yet addressed properly, by and large.

Eventually, education provision is, despite other notions in the public and policy, insufficiently addressing the specific pedagogical needs of children from low socio-economic backgrounds, and here boys in particular. Already the mere figure of 17% of functionally illiterate 15-year olds in a country like Germany is witness enough to highlight this issue. Although some progress can be identified since the first PISA-Study (OECD 2001), progress is rather slow and seems to become slower in recent years (OECD 2016).

Another example: For years already, more than 250,000 adolescents have to enter into the so-called transition system, because they do not manage to sign a training/apprenticeship contract with a company or a VET-school, commonly because of low educational performance (many of them are of migrant background).⁴⁴

In addition, the complex nature of legal rules, regulations and institutional responsibility in Germany (not only between federal, state and municipality level, but also between different departments of the same institution, e.g. ministries) are a serious problem in addressing these groups, whereas a limited (or almost non-existent) understanding of the problems of such sub-groups of society are contribution as well. Different laws follow a different intervention logic and line of argumentation and can hardly be aligned to each other.

Eventually, a readjustment – or even complete overhaul – of this situation, which would be needed to move from reparation to prevention, would require substantial amounts of money, which cannot be financed by public budgets, e.g. because of scarce funds, but also because of inflexibilities, caused by legal regulations/restrictions or judicial decisions, backed by a specific line of legal argumentation (Dohmen 2015). An example of such imbalances – or inflexibility - is provided in the project case on energy efficiency (see section A6.3), where tendering rules and, in particular, accounting practices, considering long-term financial or contractual obligations as debt hamper short- or long-term savings, which would free funds for other, more efficient and effective political options. In fact, the energy saving contract would even save public funds in the short- and in particularly in the long-run and, thus, reduce the level of debt. In this specific case, the option is not to sign a contract or not, but to save money or not. Legal regulations or the interpretation of legal requirements prevents the municipality from reducing the total level of debt, but also from saving power and rehabilitation of sanitary facilities.

⁴³ According to recent figures, the employment rate of those with no or low qualifications is at around 50 to 60%, whereas the figure increases to 85% and more for those with vocational or higher qualifications.

⁴⁴ As these young people are in education (however good or poor it is), they are not insufficiently covered by statistics on youth unemployed, although they are highly likely to remain low or even unqualified. A probably more realistic OECD-figure, based on another statistical approach, states a “real” youth unemployment rate of 12% (OECD 2016).

A6.1.5 Scale of investment / expenditure required

A6.1.5.1 At project level – resources required for a typical project

The investment volume depends on the particular project and its design and coverage. For example, the decision to expand the capacity for early childhood education and care rests with the municipalities, even though the state would also have a stake in providing co-funding. The same applies, if lone mothers and ECEC-provision for their children should be addressed, though, again, co-funding might come from the state and/or the federal level.

In most of these cases, the funding volume for a single project is limited to some hundred thousands of Euros; sometimes it might have a volume of a few million Euros.

A6.1.5.2 At portfolio level

The level of possible aggregated investments in such “Social Impact Bond 2.0”-projects can amount to several (tens of) million Euro. The full (hypothetical) potential for a country like Germany might even amount to some billion Euros, but probably only in the long-term.

A6.1.6 Private / Social Sector Finance Provider

Two similar ideas for the set-up of such an “Education Resource Company” or an “Education Investment Fund” have been developed, which are, in fact, quite similar. The ERC or EIF is an umbrella organisation, hosting various projects in different sectors of education, in order to allow diversification of risk but also quick as well as long-term returns, in response to investor expectations/requirements. Diversification has been mentioned to be a key issue for PbR or SIB-projects in order to reduce the risk of failure and to minimise total loss.⁴⁵ Another argument in favour of diversification are the differences in the life-time of each project and the starting point of positive returns, the time to break-even and the full-fledged benefits.

The preparedness of commercial investors to invest in Social Impact Bonds 2.0 depends particularly on the rates of return options, in relation to the risk assessment. This group of investors, which are part of the EFSI-strategy, expect a level of returns that is not limited to small values, e.g. 2 to 3 percent. It has to be clarified to what extent such expectations are in line with the EU definition of a “social investor”. Thus, if the ERC/EIF manages to offer (generate) attractive, though not extremely high rates of return, we would expect that (life) insurers, capital investors or private persons would be interested to join in, complementary to foundations and other philanthropists.

In certain regions, even the ESF might be co-funder in addition to private investors; it could complement public and private investment.

Eventually, the level of financial return depends on the share of fiscal benefits appropriated to the ERC/EIF and the public entities involved. In a federal state, such as Germany, for example, fiscal returns are shared between the three layers and, most often, the social insurances. Thus, higher returns can be generated if all three layers would be prepared to share their fiscal returns with the ERC/EIF.

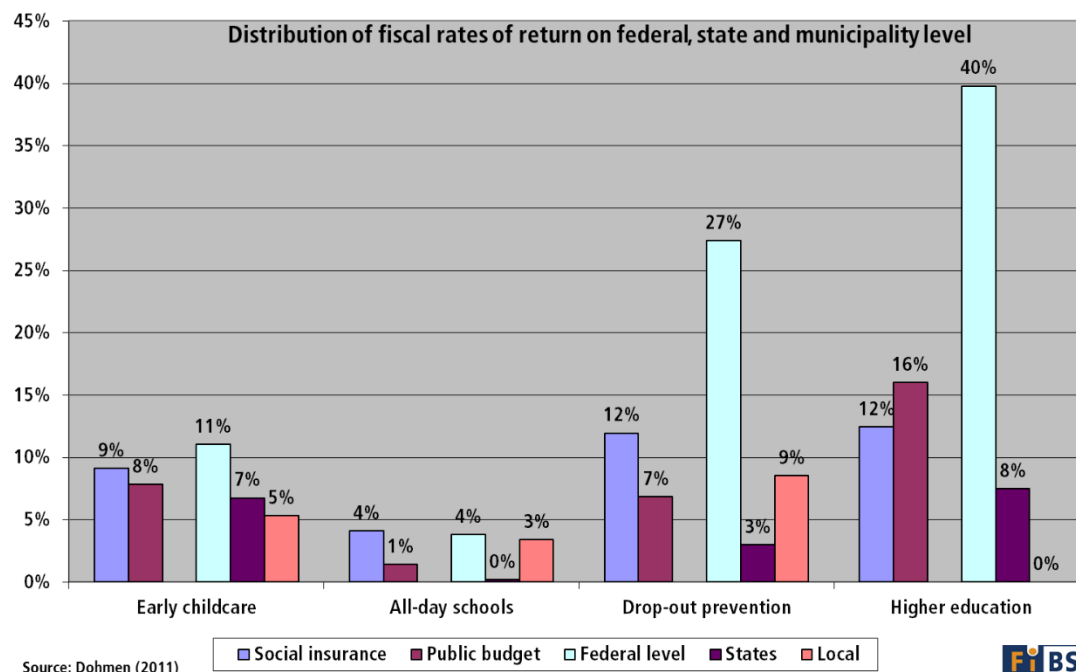
A6.1.7 Income Generation

The intervention will result in social outcomes on the one hand, leading not only to social impact, which are intangible assets/returns, which will, however, lead to

⁴⁵ Given the schemes for PbR and SIB implemented so far, it is not yet possible to argue towards the potential of a positive return, as the premium or surplus in case of success is commonly too small to generate a surplus, unless every project is successful and generates this premium. To cover only a failure rate of 10%, the premium per project would have to be 11% at least in order to mathematically arrive breakeven.

additional fiscal returns, e.g. higher income tax payments, higher social insurance contributions, lower social welfare payments etc. The following figure provides some indications on the returns of certain interventions and their distribution among different stakeholders, though at a more general level.

Figure 12. Returns of intervention



A6.1.7.1 Payees

The payees depend on the specific project and the federal layer(s) involved. Some projects, for example, aiming to reduce the need for social care (Hilfen zur Erziehung) support the municipality level in particular. Other projects affect various layers at the same time (see above). In these cases, all three federal layers (federal level, states and municipalities) as well as the social insurances (the federal employment agency, in particular), ideally, should enter into an agreement with ERC/EIF, appropriating a certain share of their fiscal benefits.

A6.1.7.2 Income collection

If possible, and a small group of people benefits from the project, it would be possible to follow them up and to calculate the fiscal benefits for each case; in other projects, it would be, ideally, helpful to conduct Randomly-controlled tests in order to identify the differences in outputs and outcomes between those participating and benefitting from the projects and others not involved. Based on the identified differences between both groups, the fiscal returns can be identified and the corresponding amount transferred.

A more simplified approach might be to rely on some assumptions and to base financial transactions on it: For example, if the ERC/EIF invests in 100,000 students the basis for the estimation of the fiscal returns can be based upon average numbers, i.e. the number/share of drop-out in the student cohort result in the number of graduates. Bringing the number in relation with the total number of university graduates, e.g. in case of a drop-out rate of 25%, 75,000 students will eventually graduate. If this is divided by the number of 7.5m university graduates in the workforce, 1% of tax revenue from university graduates etc. is the basis for the appropriation to the ERC/EIF. In times of growing information and easiest technical operations to follow such groups, the foundation should become better and better.

A6.1.7.3 Time period

The time period depends on the specific project and approach. Common payment by results schemes require commonly 4 to 8 years, employing "Social Impact Bond 2.0"-approach, the time horizon may be longer but arrive at higher rates of return. Furthermore, also the point when investment turns into returns and to breakeven depends on the particular nature of the project. For example, projects aiming to help NEETs to enter into training and employment, may take a few years only to generate positive returns, which is the moment, when they enter the labour market, either as trainees or employees. In other cases, e.g. investment in early childhood education and care, it take at least 10 to 15 years until the first will enter into the training system or the labour market; the full cohort will be in the labour market 20 to 25 after commencement of the project. From this moment, however, returns will be generated, until they leave the labour market, e.g. because of retirement. However, fiscal returns may even occur afterwards, as they are less likely to be dependent on social welfare payments. Thus, the time period for repayment of funds or relieve to guarantee should take at least 5 or, probably better, 10 years.

A6.1.8 Service Provider

Service providers, apart from ERC/EIF, are educational institutions operation "normally" in the education system, as well as, in certain cases, newly established entities, targeting specific groups.

A6.1.9 Project Delivery Framework

The diagram (see Figure 13) presents the basis structure of the ERC/EIF and provides a simplified model.

A6.1.9.1 Project manager

ERC/EIF

A6.1.10 Financing Model

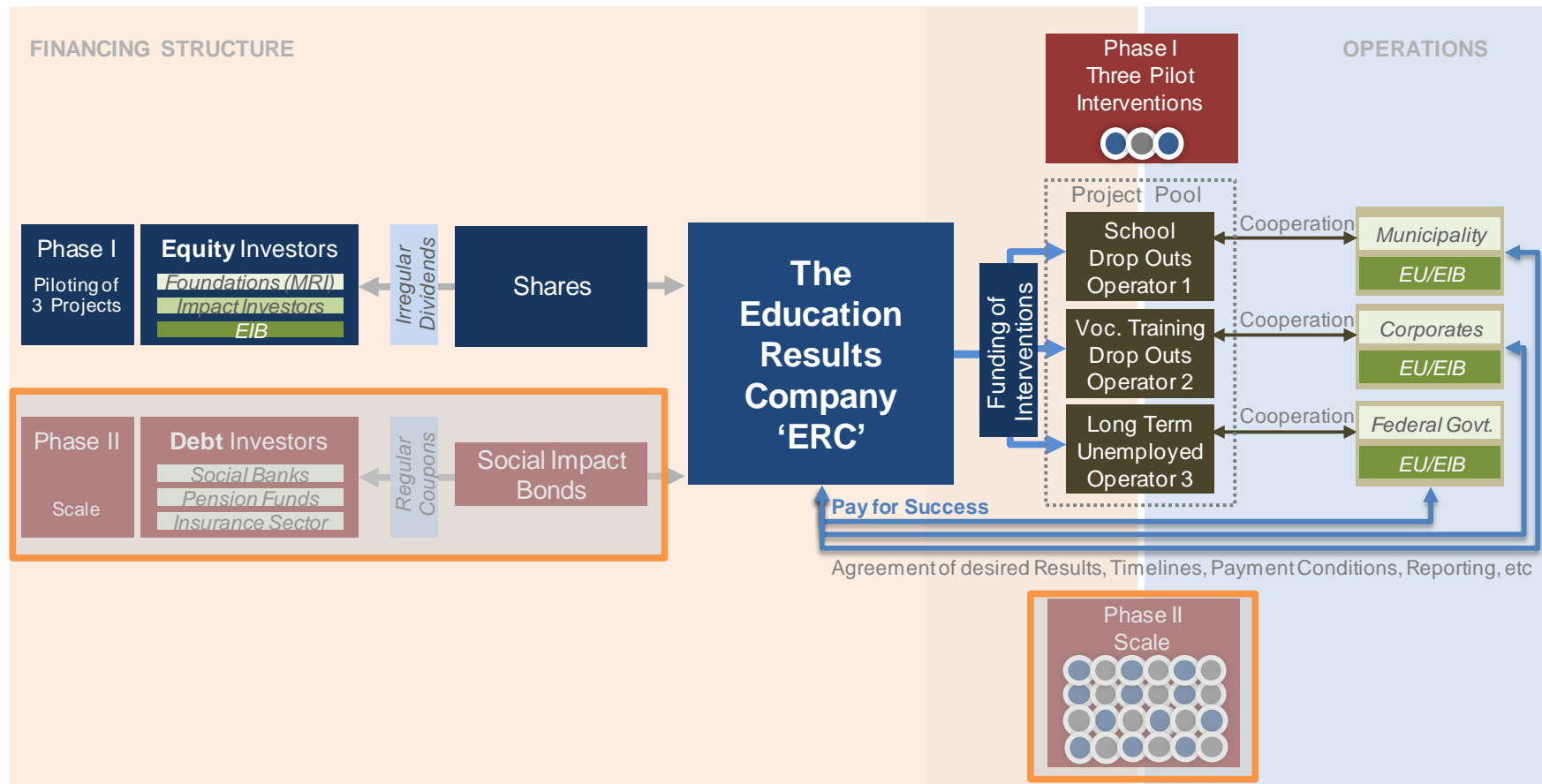
ERC/EIF collect the money from private and, if applicable, public investors and spend the money for the purpose foreseen, e.g. education and training of migrants, higher education, low-performing school leavers etc. Once the target groups successfully terminate the program and enter into the labour force, the fiscal returns are estimated/calculated and the corresponding share of appropriated benefits is transferred to ERC/EIF.

A6.1.11 Assumptions / Risks

An important factor concerns the distribution of costs of returns in federal systems. It is therefore important to analyse both sides of the calculation in detail. For a first start, it might be helpful to select a project that concerns only one layers, e.g. the municipalities in relation to reducing the need for social care of children (Hilfen zur Erziehung). In other cases, all layers would have to be involved in the funding streams, which requires their willingness to do so – free riding might be an issue.

Another factor is the long-term nature of fiscal benefits and the particular interest of many investors to benefit within 8 to 10 years and the expected level of returns. According to previous PPP-experiences, insurers, for example, commonly expect a rate of return of about 7%, even though they actually, do not earn the level at normal capital markets. Anecdotally, some social investors expect rates of return of 15%. Even in case of relatively rewarding projects, this might to too high or require that the state appropriates more than fifty per cent of its fiscal returns to the fund. Such a high level of return would also limit the variety of interventions.

Figure 13. Outline model for an Education Results Company



A6.1.12 Aggregation Potential

A6.1.12.1 Likely spatial scale

In order to allow some flexibility, the ERC/EIF should operate at national level; the same applies for any platform.

A6.1.12.2 Possible platform sponsors

We would expect that some foundations as well as some ministries might be interested to act as a sponsor.

A6.1.13 Summary of the investment opportunity

This Option describes potential solutions to attracting institutional investors to the education sector following a completely different approach. This Option focuses on outcomes-based financing to address some of the most pressing social issues in the European education sector – for example school/college and vocational training drop-outs and the long term unemployed.

Outcomes-based or 'pay-for-success' models have been introduced into the public debate over the last 6 years. The idea started in the UK with private sector investors paying for measures to prevent convicted youth from reoffending. The concept included the measurement of outcomes in order to determine whether the state-prison system had indeed saved costs from reducing reoffending rates. If the outcome was positive, the private sector (impact) investors would get their money back plus a sizeable return of up to 13%; if the social goal was not reached the local government would not pay anything and (impact) investors would lose all their money.⁴⁶

⁴⁶ An introduction to pay for success models can be found on page 14 of the report 'Impact Investment: The Invisible Heart of the Markets', The Social Impact Investment Taskforce, 9/2014:
[http://www.socialimpactinvestment.org/reports/Impact%20Investment%20Report%20FINAL\[3\].pdf](http://www.socialimpactinvestment.org/reports/Impact%20Investment%20Report%20FINAL[3].pdf)

A6.2 Adult Learning Loans (Germany)

A6.2.1 Target Sector

This project describes the core principles for the introduction of an Adult Learning Loan, here with special emphasis to Germany (an amendment to Austria might be possible).

The adult learning loan mainly caters for adult learning, further education or for the lifelong learning sector, though it may also be applicable to the higher education sector, if adult learning (further education) takes place in universities.

A6.2.2 Capital (Infrastructure)

The loan is not directed towards the financing of capital/infrastructure. However, to the extent the costs of the provision of adult learning cover also the costs of capital, they are covered indirectly.

A6.2.3 Revenue (Additional Services / Lending facility)

The project foresees the establishment of a loan scheme for the financing of more expensive adult learning programmes, leading to new qualifications or professionally recognised certificates. It supports the financing of fees for the provision and thus also the revenue of public and private adult learning providers, including universities, as well as the costs of living and indirect costs or participation, such as learning materials, travel and accommodation etc.

A6.2.4 Investment context

A6.2.4.1 Government / Market failure leading to under-investment / public expenditure

Adult learning in Germany is, like in most other European countries, largely privately funded, through companies and individuals. A rough estimate in relation to the total costs (excl. of opportunity costs) to individuals for adult learning amount to 15bn Euro⁴⁷. Private provision is also the biggest part of vocational further education, in either individual or in-company-training.

Although Germany employs a large number of funding programmes for adult learning, only very few are in a position to provide sufficient liquidity for more costly programmes, e.g. costing €2,500 or even €5,000 and more in relation to participation fees. In addition to co-financing via tax incentives, which does not overcome the liquidity barrier, only one grant scheme and two loan schemes are in place to help bear the costs of more expensive programmes. The only grant scheme is the Bildungsscheck Brandenburg (training cheque Brandenburg) is applied in one state only. The first loan scheme, the Master Craftsmen Loan, addresses only those engaged in specific programmes aiming to upgrade the qualification to master craftsmen level, which is, though catering for around 170,000 annually, of relevance for a very specific sub-segment of further education, not covering a large number of professional programmes. The second loan programme, the KfW student loan, covers the costs of living for adult learning to the extent it is qualification oriented and takes place in universities. The tuition fees cannot be financed through this scheme, unless the costs of living are already covered by other means.

In the light of this bottleneck, a loan scheme for further education has previously been suggested⁴⁸ as a third pillar of a more comprehensive scheme to provide liquidity for costly programmes. Such a scheme does not yet exist. Discussions have taken place between the Federal Ministry of Education and Research and KfW Bank, without

⁴⁷ Dohmen, Dieter, Jochen Laps, Victor Cristobal Lopez (2017), Private Weiterbildungsausgaben in Deutschland, Studie gefördert vom Bundesministerium für Bildung und Forschung, mimeo, Berlin.

⁴⁸ Dohmen/de Hesselle/Himpele (2007); Rürüp/Kohlmeyer (2007)

reaching an agreement. A feasibility study was conducted some years ago and estimated, based on interviews with possible beneficiaries a funding gap of approximately 100m Euro per annum, focussing only participants who were in employment and not engaged in further education in higher education institutions, as this group was expected to be addressed by the KfW student loan scheme. However, so far, no loan scheme, targeting a broader audience, has been implemented in Germany.

Official information on why discussions between the ministry and KfW did not lead to the introduction of a loan scheme, is not available; although it is probable that both parties could not agree to establish such a scheme for a number of practical reasons. In particular the administrative / transaction costs are potentially substantial because of the limited amount to be granted for each loan contract. Another issue could have been a wish to subsidise particularly the loans for people with lower income or socio-economically worse-off background, whereas better-off people would have to bear the full interest rates; this would have meant that the subsidy would have to be specified for each contract, rather than to refer to the whole contracted loan amount. The public costs to bring the interest rate down to a level comparable to the student loan might have been another issue. However, these are suppositions, as no official information is available.

Adult learning loans have previously been discussed at state level; here again, not much information is available, as to why no loan scheme was established. Some hints point to interest rates, which might have been considered too high and, in fact, comparable to normal bank loans. In this regard, application procedures are crucial; transaction costs increase the more layers are involved. If, for example, the so-called "house bank" is involved, this is likely to raise the interest rate by at least one percent. The state-owned bank has to finance at normal credit market conditions and, since the total number of loans is smaller than for a German-wide scheme, this will result in comparatively higher interest rates. The smaller number of loans is probably also driving the average transaction costs, because much of the costs are fixed costs; i.e. insufficient room for economies of scale, are an issue. Furthermore, the "house bank principle" is nowadays possibly questionable, as an increasing number of (possible) applicants might not have a "house bank" anymore, but operate via online banks. It seems also plausible that the core target groups would not have been reached, because of adverse selection etc.

An explorative survey among commercial banks revealed that no specific loan for adult learning/further education is available in the market⁴⁹. Some banks pointed to normal "consumption loans", which are also available to cover the costs of adult learning. As with any other loan, approval and interest rate depends on an unterminted employment contract, income level, degree of creditworthiness etc., which, in practice means that particularly people who are more or less not in need of a loan for adult learning would be able to get a loan, while those who would need a loan would not get it or not on reasonable terms. A classic situation of adverse selection.

A6.2.5 Scale of investment / expenditure required

A6.2.5.1 At project level – resources required for a typical project

The funding volume needed for such an adult learning loan depends upon some core features of the loan and in particular, the concrete definition of "the project". In a discussion with a ministry, responsible for higher education, it was estimated that a volume of about 50m Euro could be "easily" reached for university-based further education in the ministry's state (one of the bigger German states), if the loan were to cover tuition fees, supplementary costs related to the learning process (learning materials, costs of travel and accommodation, as well as costs of living. This was supported by a rough estimate: 50m Euro could result, for example, if 2,000 contracts

⁴⁹ Dohmen, 2017

are signed with an average amount of 25,000 Euro or 10,000 contracts with an average value of 5,000 Euro. As further education is expected to gain additional importance in the future, because of a number of reasons, these figures were not perceived as over-ambitious.

However, it should be borne in mind, that the expected funding volume also depends on the loan conditions and the target groups addressed, as on the one hand, a higher number of contracts brings average transaction costs down as does a higher credit volume, resulting in lower interest rates. The same might result from more technically-oriented solutions, though this would have to be explored. On the contrary, broadening the target groups might also raise the default risk. A particular need seems to exist for those with lower qualifications, to some extent also for the unemployed, as they are insufficiently addressed by the Employment Agency.

A6.2.5.2 At portfolio level

A German-wide model, or the combination of several states, would raise the total volume. A feasibility study, focussing on non-university adult learning for people in employment, estimated a funding gap of about 100m Euro per annum. In the light of the project-based figures for the model mentioned above, it appears that the total volume for Germany could even be higher. However, a full market research analysis would need to be undertaken.

Since at the moment only very few countries in Europe (Sweden, UK) employ loans for adult learning or grants, which are high enough to cover the costs of more expensive programmes (see below), there is a possibility for an international scheme that would give room to increase the scale of the investment and to diversify the risk level.

A6.2.6 Private / Social Sector Finance Provider

The Adult Learning Loan is thought-off as a pilot model for which the market will have to be investigated more in detail, once the general pre-conditions for EFSI support are discussed with EIB. The general approach is that an Adult Learning Loan Fund⁵⁰ – as SPV - will be established as a joint venture of private funders and public stakeholders. Some ministries indicated their interest to join in. It will have to be discussed, whether the ministries would be willing to carry some of the default risk in addition to the EIB.

If EIB and/or the public stakeholders are willing to provide guarantees for default, private investors would probably willing to invest; the core question being what their expected rate of return is. The intention is to offer the loan at modest interest rates. We expect that lenders to the Fund might accept a modest interest rate of 3-4%, if EFSI takes over the first loss risk.⁵¹

This interest payment the Adult Learning Loan takers have to pay in order to sign a contract is the expected return of the scheme (see below for some more details). In addition, it will have to be identified whether and to what extent the Federal Employment Agency might be another stakeholder who appropriates some of its returns, because of loans granted to unemployed people and who enter into a new employment contract after the training.

A6.2.7 Income Generation

Loan takers are expected to pay a fair and reasonable interest rate of 4 to 5%, either as explicit interest rate or through the calculation of the implicit interest rate in case of an income-contingent loan or an ALL-Fund contribution (reversed fund). We would assume a default rate of 10 to 15%, for which an EFSI guarantee could be used as well as support from the German Federal and/or State governments.

⁵⁰ The term “fund” used here does not refer to a revolving fund.

⁵¹ It will have to be discussed with EIB and EU, if this return expectation is compatible with their definition of social investor.

Another option for cost recovery would be that the federal or state governments sign a contract with the fund for the services it delivers, e.g. proof of the loan applications, loan disbursement and recollection etc.

A6.2.7.1 Payees

The loan takers are the major payees, but it will have to be tested, whether it might be possible to involve also public entities in the funding structure (e.g. if the Federal Employment Agency appropriates some of its fiscal benefits, if unemployed are supported with a loan, which were not funded by the agency itself).

The major advantage for the ministries is that they are relieved from the need to establish their own loan scheme, but benefit through fiscal returns, if, for example, unemployed enter into an employment contract and pay taxes as well as social insurance contributes, while they would have to receive social welfare payments otherwise.

A6.2.7.2 Income collection

Loan takers will have to pay either a mortgage-type or an income-contingent loan, incl. an interest rate.

As already briefly mentioned the loan should allow to cover fees for enrolment and examination, learning materials etc. as well as the costs of living. For the pilot phase, it might be useful to establish a certain maximum threshold, which is to be discussed more in-depth once the scheme is drafted for implementation. As a first draft, it seems reasonable to limit take-up a loan of up to 10,000 Euro (or unrestricted) to cover programme and examination fees etc. as well as a maximum of up to 1,000 Euro per month for the costs of living.

A major issue concerns the method of repayment and it will have to be discussed with the major investors, whether only one of these two options (and if so, which of the two options) or whether both schemes should be tested during the pilot in order to identify the more suitable scheme for an adult learning loan. A pilot scheme could be either implemented in two countries, e.g. Germany and Austria, or in two states in one country, e.g. Germany, in order to identify specific advantages and restrictions.⁵²

For Germany, the interest rate should be established at 3 to 4%, which is very close to the rates presently applied for KfW student loans in Germany (and may be based on 6 months Euribor as is the case for the student loans). It has to be discussed whether no means-testing should be applied (as in the case of the student loan) or whether some basic form of credit rating should be applied, apart from former misuse or non-repayment of loans. For a first phase, an estimated 10% deferment or default-rate should be built-in, where final loss amounts could be limited to 5%.⁵³ The maximum repayment period should be five years, under certain circumstances, such as very limited income expectations in highly demanded professions, e.g. carers, nurses etc.,⁵⁴ as well as child bearing/rearing, parental care etc. It should be discussed, whether an upper threshold of e.g. 10% should employed, in order to avoid overload etc.

The repayment modalities depend on the specific model applied.

⁵² In another, more demanding approach of an adult learning loan it might be possible to involve the employment agency in the "repayment of the loans", as they would particularly benefit if low-skilled get engaged in qualification-/certificate-oriented training programmes. In this case the repayment would not only be based on the individual, but also on the fiscal revenues of the employment agency (or even additional social insurances, such as, for example, the health or care insurance).

⁵³ This assumes that 10% of the loan takers may have to defer payments, while only a certain share of these deferments will eventually result in loss; the rest will be repaid, but at a later stage.

⁵⁴ It might even be discussed whether people getting engaged in professional training in such professions should receive a special premium, e.g. loan/fee deductions etc.

Mortgage-type adult learning loan: A concrete example for a mortgage-type loan repayment may look like as follows: a learner who takes up a loan a 5,000 Euro is expected to repay the loan, for example, in 2 years, whereas the remaining conditions are applied according to the figures presented above. This would result in a monthly instalment of appr. 230 Euro, which is 11.5% in case of a gross income of 2,000 Euro, but 16% in relation to the corresponding net income of appr. 1,400 Euro.⁵⁵ The share decreases the higher the income, and is, for instance, 7.3% if the income is at 3,000 Euro and 12% in relation to the net income, respectively. Yet, the total interest payment of 200 Euro may not necessarily be sufficient to cover administration costs and default rates of the individual case.

In case of a loan of 10,000 Euro and a repayment period of 4 years, the monthly instalment would have to rise to about 280 Euro. In this case, the share of income would be 14% (gross income 2,000 Euro) and 20% in relation to the corresponding net income of 1,400 Euro. However, as before, the interest payment of appr. 970 Euro is probably insufficient to cover the expected costs of administration and default. These findings of a rough estimate result indicate that the "add-on interest" to cover costs of administration and default in addition to the mere interest rate might be substantial. This example highlights that the costs of re-financing and securing the loan are very crucial.

Income-contingent adult learning loan: In case of an income-contingent loan, the duration of repayment depends on the share of income that has to be repaid, as well, of course, on the underlying interest rate. Assuming for the moment a fixed 10% share of income the monthly instalment would be 200 Euro in case of a gross income of 2,000 Euro and 300 Euro in case of an income of 3,000 Euro. The repayment period is 32 months in the former and 21 months in the latter case. Total interest payment would add-up to 232 Euro in the first and 220 Euro in the second case.

The repayment period would increase to 68 and 43 months, respectively, if the loan amount would rise to 10,000 Euro, with interest payments of 1,410 and 900 Euro. This highlights that the fairer repayment conditions in relation to monthly income will result in an interest burden, which may be quite substantial. In this example case, the interest add-on would be more than 50%.

A6.2.7.3 Time period

We would expect a period of around five years to generate core experiences, which also includes information concerning deferment and default rates. EFSI guarantee should last at least five, if possible seven, years.

A6.2.8 Service Provider

The Adult Learning Loan Fund, which is to be established, will be the manager of the funds.

A6.2.9 Project Delivery Framework

A6.2.9.1 Project manager

The Adult Learning Loan Fund will be the entity that manages and operates the scheme. It will have to be established, preferably as PPP of private shareholders and federal and state governments. In order to avoid the fund requiring a banking license, co-operation with an existing bank, ideally, a public entity, such as, for example, KfW and/or L-Bank Baden-Wuerttemberg, NRW.Bank etc., could be aimed for.

A6.2.10 Financing Model

The fund will be filled with money from private stakeholders, possibly complemented with public funds, if applicable.

⁵⁵ The estimate is based on German regulations: appr. 21% is deducted for compulsory social insurance contributions,

A6.2.11 Assumptions / Risks

Core assumptions are:

A larger number of adult learners are willing to take up a loan for a professional qualification or certificate. According to recent data, adult learners spend 7.6m Euro per year for participation and examination fees and learning materials. If other costs are included in the estimate the figures may go up to 15m Euro, incl., for example, travel and accommodation costs, etc.

According to a feasibility study, focussing on people in employment, some 1 to 1.5m learners have costs of 1,000 Euro and above, of which around 30% might to take up a loan to finance the learning, which is between 300,000 and 440,000 loan contracts in absolute figures. Out of these numbers slightly more than one third indicates a strong interest, the remaining would rely on a loan only in case of an interest rate which is below the market rate. A small share of 1% has a clear plan for loan take up. Eventually, the study concluded that between 18,000 and 44,000 loan contracts might be signed per year, which would result in a total credit amount of between 95 to 230m Euro, whereas the average amount would be 5,300 Euro.

It should be taken into account, that for this study only employed people were considered eligible; another probably sizeable share of people, actually not in employment would also be willing to take up a loan. Some preliminary data analysis, though without further in-depth investigation revealed that a larger share mention that non-availability of funding has been a barrier to participation in adult learning.

Another assumption concerns the willingness of private funders to provide sufficient funds for adult learners as well as the willingness and interest of the public stakeholders to join in. However, even if the latter are not immediately involved, the fund could be established.

A6.2.12 Aggregation Potential

A6.2.12.1 Likely spatial scale

As a starting point, and based on already expressed interest, the fund could start at state level, e.g. as fund to support university-based further education and then, step by step, cover Germany as country. Expansion to at least other German-speaking countries, such as Austria, would be possible.

A6.2.12.2 Possible platform sponsors

Depending on the spatial coverage, that sponsor could either come from the states, where the fund operates, e.g. the Landesbank Baden-Wuerttemberg or NRW.Bank, or KfW as federal level entity.

A6.2.13 Summary of the investment opportunity

Lifelong learning (LLL) is gaining importance and will gain even more importance in the future. Although substantial funding for further education is provided across European countries the share of formal qualification oriented life-long learning is commonly modest, though with some variation across countries. An important reason for this limitation is that funding sources for such costly programmes is very limited and in many cases not available, e.g. in Germany. The Adult Learning Loan intends to address this gap and to provide funding for people prepared to sign a loan contract. The monies are expected to come from private sources, such as, for example, insurance companies, capital investors etc. Ideally, repayment should be a fixed share of monthly income, whereas people with lower income repay less in absolute terms than those with a higher income. Overall, repayments should cover the total budget disbursed and an adequate interest rate (incl. costs of administering the loan).

Excursus: The following box provides some information on existing adult learning loans.

Experiences with adult learning loans⁵⁶:

Although, at first glance, adult learning loans seem to exist in almost all EU-countries (Cedefop 2012), all but three schemes are for initial VET and particularly higher education. Focussing on adult learning, only four loan schemes are available for adult learning, i.e. the Swedish loan, the English 24+Advanced Learning Loans (that replaced the Personal and Career Development Loan (PCDL)), the German master craftsmen loan (AFBG) and the Australian VET Fee HELP.

The approaches of these four countries to address adult learning are different. While, for example, Sweden has an overall instrument targeting higher education as well as adult learning at the same time, which is – alike the German master craftsmen loan – a conventional, mortgage-type loan, Australia and the UK employ income-contingent schemes (in contrast, the previous Professional and Career Development Loan in England was a mortgage-type loan⁵⁷).

The **English “24+ Advanced Learning Loans”** (24+ ALL) were introduced on 1.8.2013, replacing not only the previously employed PCDL, but also the grant funding for level 3 and 4 programmes, which refers to A Level, Diploma and (higher) apprenticeships. The 24+ ALL are, in its principle design features, identical with the student loans that were introduced a few years earlier. The loan is income-contingent and has to be repaid at a rate of 9% of the income that exceeds the annual income threshold of £ 21,000(€ 24,600). For example, if someone earns £ 25,000 per year s/he would have to pay £ 30 per month (£ 360 per year) (www.gov.uk/advanced-learning-loans/further-information). The repayment period will last until the original loan amount is completely repaid, inclusive of interest, whereas repayment will be stopped (temporarily), if the income shrinks below the threshold of £ 21,000 (€ 24,600). The interest rate is variable and based on inflation rate (Retail Price Index) plus a surcharge of 3% during the learning period (and afterwards until next April). This rate is also valid if the income exceeds £ 41,000. In contrast, the inflation rate serves as interest rate in case that the income remains below the threshold of £ 21,000; between £ 21,000 and £ 41,000 the surcharge is up to 3% (www.gov.uk/advanced-learning-loans/further-information).

The loans' focus on so-called level 3 and 4 qualifications implicates that loans can only be used for specific schemes (whereas schemes for the less qualified still need to be funded through grants) and loans for HE related continuing trainings are funded through student loans. The loan amount depends on the type of continuing training and on the level of charges. As such, older apprentices should only be eligible to half as large the loan amount as their employer would be expected to co-finance the remaining half of the training costs (Skills Funding Agency 2014; LN Regen 2013).

While the government expected an increase in demand for loans to 50,000 in the first and 160,000 in the second year, experts casted doubts that such high figures are realistic (Fletcher 2011).

First evaluations have shown a decrease of the participation in continuing training by 15 to 20% - which is, however, not as drastic as initially anticipated (LN Regen 2013). The drop in participation rates especially concerns teacher trainings (apprenticeships) that are subject to very low applicant numbers and a lack of co-financing through the employer. In consequence, funding for this group was changed back to grants in February 2014, only six months after the loan system was implemented (BIS 2014). In contrast, concerns about potentially negative effects on underprivileged groups (BIS

⁵⁶ This section is based on FiBS/DIE 2013.

⁵⁷ For a detailed presentation of the design and the empirical experiences with the PCDL see FiBS/DIE 2013.

2014) and women have (until now at least) not proven true (LN Regen 2013) or rather effects might differ by region, as the study (LN Regen 2013) refers to the great area of Manchester. Furthermore, education providers in Manchester seem to have succeeded in negotiating additional government grants which partly made up for the decline in demand.

A more comprehensive evaluation of the first year of implementation was conducted on behalf of the Department for Business and Skills, in 2015 and published in early 2016 (BIS 2016a, 2016b). The evaluation study observes a drop by 31% in the volume of learners aged 24+ on courses eligible for 24+ Advanced Learning Loans (BIS 2016a, p. 16); arguably this drop was expected according to prior impact analyses. While the study argues that it is not possible to isolate the effect of loans from other factors, 55% learning providers reported a drop in participation figures and the majority attributes this to the introduction of the loan (ibid.). Furthermore, the drop in numbers affected all qualification types eligible for this kind of programmes, with the exception of HE courses, where take up increased slightly.

The socio-demographic composition of learners has not changed, as far as gender or ethnic origin is concerned, while non-loan learners are more likely to be employed and to have higher prior qualifications. Further differences could be identified between loan and non-loan learners, e.g. in relation to learning pathways etc. More than half of those, who did not take up a loan, financed their learning on their own, which was more likely for non HE-level 4 qualifications.

Learning providers play a key role in access to 24+ Advanced Learning Loans, as almost two thirds of learner were not aware of the loan initially. It appears also that an information bias exist as loan takers appear more informed than non-loan takers.

Eventually, the study argues that there "is evidence of qualitative additionality – 76 per cent of learners stated they would not have been able to undertake their study in the absence of a loan. In addition, the majority of loans learners report doing the course sooner, at higher level or a longer course than would have been possible without the loan. 24+ Advanced Learning Loans are providing a source of finance for learners who might otherwise not be able to afford FE learning and are having greatest impact on those who are less advanced along the learning pathway. Loans are enabling such learners to have opportunities to progress to Higher Education or realise longer-term career goals" (BIS 2016a, p. 18).

Four per cent of learners accessed additional financial support from the Loans Bursary for learning materials etc.

In contrast to England which employs to different loan models, which are, although, identical in terms of loan regulations and conditions, Sweden has a unique scheme for higher and further education, combining grants and loans.

The interest rate of the loan is 2.4% (Cedefop 2012a; survey date: 2010/11) based on the three-year average of government loans – which, however, is reduced by 30% to compensate for the lack of tax allowance for interest payments that is not granted for this type of loan.

Attention should also be paid to the fact that Sweden's average expenses for formal continuing training are comparatively low (2007: EUR 400) which implicates there only being a limited need for loans for continuing training schemes. The grant-loan model includes basic funding that consists of a 31% grant and a 69% loan (totalling SKR 8,920 (EUR 1,040) per month in full-time training) as well as an additional loan covering a maximum amount of SKR 1,740 (EUR 200) per month in full-time training. If the scope of continuing education is smaller, this amount is reduced respectively. The loan can also be used for adult secondary education and classes in adult education centres (Volkshochschule), comprising full-time training only, for example, language classes for migrants.

The loan is to be repaid until both the loan amount and the interest is paid off, at the longest, however, until the borrower has reached the age 65 years. The loan is to be repaid within 25 years, the minimum amount must not fall below EUR 650 per year. While, in principle, it is an annuity loan, in case of low income, the rate of repayment may be reduced to 5-7% of the borrower's gross income (Cedefop 2012a). According to the study, the annual rate of non-repayment is comparatively high at 9.35%. Recent years have seen an increasing number of reports on repayment difficulties among certain groups, especially among migrants who used the loan for language classes (Scancomark.com, reported on 3.2.2013). The problem behind these repayment difficulties is the currently tight situation on the labour market. In case of low income, even a "relative low repayment rate" of SKR 50,000 (EUR 5,800) will pose a problem (Scancomark.com, 3.2.2013).

Overall, the number of loan agreements totalled 240,000 in the period between 2006 and 2008. Yet, currently no information are available about the number of loan agreements specifically for the purpose of continuing education.

In principle, a person can take up the loan until the age of 54 years; however, from the age of 45 years onwards, the length of the continuing training program must decline by 20 weeks per year. This means, a 45 year-old person can participate in up to 220 weeks of continuing training per year, a 46 year-old person only of up to 200 weeks per year.

The **German master craftsmen loan (AFBG)** supports the costs of living as well as additional training costs, as far as they are directly related to the programme, i.e. fees and examination costs. Funding is restricted to 24 months in case of full-time and 48 months in case of part-time programmes.

The amount and combination of grant and loan depends on what needs to be financed. Fees and/or examination fees can be supported up to a maximum amount of € 10.226, 30.5% of it is grant and 69.5% is an interest-bearing loan. Support for maintenance is, in principle, 44% grant and 56% interest-free loan. But, as the first € 150 is a loan, while the remainder is divided into the two shares of grant and loan, the effective grant-loan ratio depends on the total amount granted. Support for maintenance can be increased by € 215 for husband/wife and by € 210 per child. In this case support is 50% loan and 50% grant. Lone parents can receive another € 113 per child as 100% grant. Until 2009 support for children and husband/wife was 100% loan and has then been turned into a 50% loan and grant. While support for programme and examination fees is granted independent from income, support for living costs is means-tested.

It should be mentioned that a reduction of 25% is granted upon application in case of successful examination. This reduction has been introduced to the regulations in 2009, and may have led – possibly in combination with other changes in the law – to an increased number of participants in the programme.

Repayment starts after a grace period of 2 years after the termination or examination, and can be extended to six years, if certain pre-conditions are met. The repayment period depends on the amount that has to be repaid, i.e. in fact it depends on the total amount of loan plus interest payments.

The loan is free of interest for the duration of the training programme plus the two year grace period but interest-bearing for the repayment period. The loan-taker can decide whether s/he prefers a fixed or a flexible interest rate. The flexible rate depends on the 6-months Euribor plus administration costs plus risk contribution and is currently (October 2016) at 1.50% nominally and effectively at 0.87%. In case of an interest rate fixed for one year, the rate is at currently (October 2016) at 1.47% nominally and at 1.48% effectively.

Repayment has to take place in instalments of at least € 128 per month, but can also be higher if the total amount cannot be repaid within the maximum repayment period of ten years.

A6.3 Financing school rehabilitation through energy efficiency measures in education buildings (Germany)

According to KfW, 27bn Euro are needed for retrofit of school buildings in Germany. This project suggests financing school rehabilitation to some extent through cost savings because of improved energy efficiency measures.

A6.3.1 Target Sector

This section drafts this idea for the school sector, but it is also applicable to other education sectors. In several German states the sanitary installations in schools are in a devastating situation, frequently noted in newspapers.

A6.3.2 Capital (Infrastructure)

Energy efficiency is at the core of this project, whereas indirect attention is given to school rehabilitation, in particular in sanitary installations.

A6.3.3 Revenue (Additional Services / Lending facility)

Enhanced energy efficiency reduces the current spending for electricity and frees funds for other costs, in particular rehabilitation of school buildings and in particular sanitary installations. Reduced current spending is either shared between the investor and the public purse or the investor invests a larger share in school rehabilitation.

A6.3.4 Investment context

A6.3.4.1 Government / Market failure leading to under-investment / public expenditure

According to the Bildungsfinanzbericht 2016 (Statistisches Bundesamt 2016), only 10.5bn (out of 122.4bn) Euro were spent for investment in the education system in Germany in total, whereas according to recent figures 27 billion Euro would be needed for school rehabilitation until 2020.

Due to limited funds for a certain share of municipalities, which bear the major responsibility for school construction and rehabilitation, and which are the major public investors in Germany, in general, their capability to invest in construction and rehabilitation of school buildings is limited. This is particularly the case for municipalities that have to spend a larger share of their budget for social welfare payments; in addition, expansion of early childhood education and care was more on the political agenda in education than school education.

Even though the federal government is drawing some attention to this issue and some states, such as, for example Berlin, increase their budgets for school rehabilitation, it seems unlikely that this will be enough to overcome this bottleneck to a large extent. Representatives from municipalities mentioned in a hearing in the German parliament on March 6, 2017, that they are lacking personnel and are therefore not in a position to plan such measures accordingly and disburse the money on time. For Berlin, the same situation is repeatedly mentioned.

Both calls for external support in the funding and in the management, also because the situation may become even worse, if immediate rehabilitation needs cannot be resolved in due time, as buildings will further deteriorate. Energy savings is commonly not included in these plans, and some state level agents argue even that energy saving pays-off only for new construction works, which is not the case as the more detailed figures presented below, indicate.

A6.3.5 Scale of investment / expenditure required

A6.3.5.1 At project level – resources required for a typical project

The costs to rehabilitate one school building vary substantially, from a few thousand to several million Euro; the same applies for energy saving as it depends on school size largely.

A6.3.5.2 At portfolio level

The funding volume of investment opportunity depends crucially on the level of aggregation, i.e. whether a smaller state, such as, for example, Berlin is considered (very recent figures indicate a funding need for school rehabilitation of about 5 bn Euro over the next few years), or a larger state, e.g. Baden-Wuerttemberg or North Rhine-Westphalia is concerned. According to our knowledge, no total figures are available for these states.

However, as presented above, school rehabilitation needs amount to 27bn Euro until 2020; costs for energy saving measures are not yet accounted for.

A6.3.6 Private / Social Sector Finance Provider

Econnoa has collected already some funds from investors and has commenced to investigate the market for such energy efficiency measures in public and private schools in various German states and municipalities as well as with private school providers. First experience suggests that private schools are easier to address, because rules and regulations applicable to public entities prevent them for using this potential to save funds (see below). It will have to be seen in more detailed analyses whether ways can be found to deal with existing rules and regulations in a manner that enables public entities to benefit from costs savings through energy efficiency.

Per (average) school, the benefit is almost 10,000 Euro p.a. in reduced energy costs, compared to a situation without improved energy efficiency.

A6.3.7 Income Generation

In principle, the investor generates a profit of around 11,370 Euro per school and year, on average, if the school transfers the costs, it currently incurs, for power to the investor.

A6.3.7.1 Payees

The payee are the municipalities – or the private school provider – by transferring the amount of money they previously paid to the energy provider to the investor. According to empirical data, provided by co2online.de, average costs for power are 42,525 Euro per school and year, which will decrease to 31,040 Euro once energy efficiency measures have been implemented. Of the difference, for the first 15 years, a small share will remain with the school providers, and 11,370 Euro p.a. will be paid to the investor. At the end of the contract period, the full difference will remain with the school provider.

A6.3.7.2 Income collection

Income collection will take place via payments from the school providers to the investor, based on the payments made previously to the energy provider. Actual energy costs, prior to energy saving measures can be retrieved from the school or municipality accounts.

A6.3.7.3 Time period

Over the full contracted period of about 15 years, the investor will receive an average annual payment of about 11,370 Euro; repayment of the investment will take place through an annual payment covering an interest surplus.

A6.3.8 Service Provider

Econnoa or another company could act as service provider.

A6.3.9 Project Delivery Framework

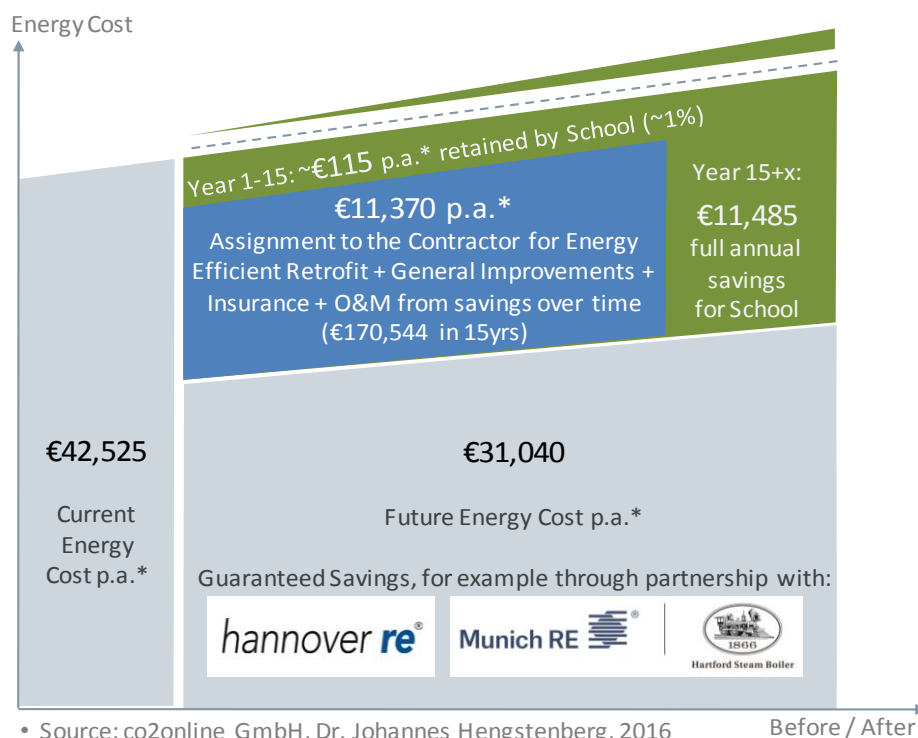
A6.3.9.1 Project manager

Econnoa could be a suitable project manager. Econnoa has started to collect some funds and gained first experience in this regard. However, a crucial issue is whether more favourable options can be identified for private engagement in relation to public entities, as, actually, the limitations are considered so important to focus on private school providers, which are far more interested and willing to get engage. Since they are relieved from tender rules and other regulations, they can far easier sign such contracts.

A6.3.10 Financing Model

The chart below depicts the proposed innovation. It is based on field studies by co2online and on estimates by the authors and should be further researched in order to underpin the calculations and evaluate the applicability in other European regions.

Figure 14. Energy efficiency retro-fit model



A6.3.11 Assumptions / Risks

Major bottlenecks with regard to public schools are on the one hand tender rules, and on the other the accounting principles, according to which long term financial obligations are considered as public debt. The latter prevents that municipalities can enter into any agreement, even if this contract results in immediate and, in particular, long-term savings. Furthermore, state level rules vary to some extent, driving the transaction costs, which are even further increased because the primary responsibility for recurrent energy expenses lies with the municipalities, requesting that a contract will have to be discussed and agreed with each single municipality. Even if the

contract builds upon a single framework, it is likely that contract negotiations will take place with every single municipality.

Preliminary experience with some local governments suggests that this seriously hampers that this model enters into force. It is obviously much easier to co-operate with private school providers.

A6.3.12 Aggregation Potential

A6.3.12.1 Likely spatial scale

The core partners are the municipalities and/or the private school providers, but as most municipalities are responsible for a limited number of schools, larger cost savings can be achieved if the project can be implemented either at state or even at federal level, even though contracting will be with each single municipality or private school provider.

A6.3.12.2 Possible platform sponsors

Platform sponsors can be the states or the corresponding state-owned bank, such as Landesbank Baden-Wuerttemberg or NRW.Bank, etc. In addition, KfW can also operate as platform sponsor.

A6.3.13 Summary of the investment opportunity

The concept intends to partially finance school rehabilitation through energy savings and to reduce the burden on public budget. The increase in cost-efficiency is quite substantial and guaranteed through an insurance contract, i.e. risk is minimised.

A6.4 Education Infrastructure Company (Germany)

The project concerns infrastructure development in education.

A6.4.1 Target Sector

Infrastructure development concerns almost all sectors, actually core sectors are early childhood education and care (ECEC), school and higher education.

A6.4.2 Capital (Infrastructure)

The present status of education buildings in Germany is to some extent poor, in other areas expansion because of demographic development and or political priorities, e.g. in the area of early childhood education and care, or need of highly skilled labour.

Another aspect concerns the enhancement of the digital infrastructure, e.g. in the school system.

A6.4.3 Revenue (Additional Services / Lending facility)

If new buildings are rented out to education providers, they are expected to pay a rent or a leasing fee for using the infrastructure. This generates a regular revenue stream allowing repaying the loans for the construction of the infrastructure. The buildings themselves are also an asset to safeguard the loans and to keep interest rates low.

A6.4.4 Investment context

A6.4.4.1 Government / Market failure leading to under-investment / public expenditure

Almost 130bn Euro of public funds are to be spent for education in Germany in 2016 (Statistisches Bundesamt 2016), across all education sectors. Of this amount, less than 9% are investment costs in construction, rehabilitation etc.

	Investment (in bn Euro)	Total expenses (in bn Euro)	
Early childhood education and care	2,6	25,7	10,1%
School education	3,9	63,6	6,1%
Higher Education	4,0	33,1	12,1%
Total	10,5	122,4	8,6%

Source: Statistisches Bundesamt, Bildungsfinanzbericht 2016

Public funds are commonly insufficient to cover all funding needs to the extent necessary. This is due to increasing levels of public debt in general, but also due to insufficient revenue at core layers in relation to funding needs. For education, major responsibility for education infrastructure lies with the municipalities, of which a relevant number is under financial supervision, because they overstretched their budgets and incurred too high debt levels.

In general, funding priorities follow more or less clear obligations. The funding of legal obligations has first priority, additional expenses can be made to the extent free funds are still available; furthermore, as Germany law does not allow states to enter into debt financing from 2020 onwards, states and municipalities have started to cut-off their budgets to meet this target in time. Municipality budgets are constraint for a number of reasons, of which a lack of funding sources at their own disposal is a major bottleneck,⁵⁸ in addition to increasing funding obligations coming from political

⁵⁸ Major funding sources of municipalities are their 15%-share in income tax revenues and the local business tax (Gewerbsteuer); in addition, they receive an upfront payment of 2% of the funds which are provided to the states via the so-called inter-state fiscal adjustment.

decisions at state and federal level. As a consequence, many municipalities are facing the problem that their funds are insufficient to cover all funding needs. This is particularly the case for municipalities, whose population is – on average – of lower socio-economic background, since this results in a high burden of social welfare payments. At the same time, this leads to lower revenues – thus, these municipalities face two problems at the same time, due to one core problem: limited revenues because of the disproportionate high share of lower socio-economic background and higher spending requirements because of this.

As investment is only possible to the extent free funds are available, (not only) such municipalities face difficulties to invest in education infrastructure. In addition, while rehabilitation has to be fully financed by the municipality, re-construction gets often financial support from the state – this results in an incentive to wait as long as possible to get state co-funding. As a result, investment levels in education infrastructure – but also in infrastructure in general - are too small to cover emerging, and immediate, investment needs in education. In addition, during the last decade a political priority has been on the expansion of ECEC for children below the age of three, of which the municipalities are the major funder, and a funding programme has been implemented with joint co-funding between the federal level, the state and the municipalities. Thus, if municipalities invest, it is highly likely that their focus is on early childhood education and care, and less on other education sectors. According to a recent study from KfW municipalities mention a funding need of about 34bn Euro for school infrastructure. Even though there is a discussion and a legal initiative that the federal level might provide co-financing of 3.5bn Euro for financially weak municipalities,⁵⁹ and some states are implementing funding programmes in this regard (e.g. Berlin), funds provided are insufficient to cover all needs, and maybe, not even the most pressing ones. Furthermore, even if funds would be available to the extent needed, municipalities do not have a sufficient number of qualified staff, resulting in request to extend the deadline, by which the federal funds are to be disbursed.

Another funding need is identified in higher education, where recent figures suggest a volume of between 35-40bn Euro (HIS).

According to a recent analysis by KfW, the level of public investment at municipality level has been decreasing over the last decades, and is now even insufficient to simply keep the required level of re-investment.

Thus, two major bottlenecks prevent sufficient investment in education infrastructure, the lack of public funds and a lack of qualified staff.

A6.4.5 Scale of investment / expenditure required

A6.4.5.1 At project level – resources required for a typical project

If looking at the higher education sector in Baden-Wuerttemberg only, total funding needs add up to 5 to 8.5bn Euro, depending on what is exactly included in the consideration. The Ministry of Science and Arts Baden-Wuerttemberg has expressed its interest to investigate suitable opportunities in this regard.

A6.4.5.2 At portfolio level

Germany-wide, the total funding requirement may add-up to almost 100bn Euro, if all three education sectors are considered jointly.

Eventually, the benefit to a varying degree, according to state law, from additional contributions from this fiscal adjustment.

⁵⁹ See in this regard, for example, <https://www.bundestag.de/dokumente/textarchiv/2017/kw10-pa-haushalt-investitionen/494930>, accessed: 10.3.2017)

A6.4.6 Private / Social Sector Finance Provider

This investment is of principal interest to capital investors and in particular to construction companies, which in the past engaged in public private partnerships. However, criticism by courts of audits etc. should be taken into consideration. Most of these critics referred to the "unfair" distribution of risks and the comparatively high rate of return (interest rate). It is argued that costs are eventually higher than would have been the case if the state would have been the investor/constructor. However, a crucial issue in this regard is that the state is actually not in a position to finance such investments out of its budgets, i.e. increasing costs for delayed rehabilitation etc. should be accounted for properly. In addition, the long-term contracting period should also be accounted for and the high level of security.

Given the comparatively low interest rates for savings, which also affects insurance companies as well as other capital investors, investing in public bonds etc., and the low interest rates for state bonds and public debt, a fair interest rate might be in a range 3 to 4%.

Foundations and similar entities might also be investors, as they are obliged to invest a certain share of the assets in absolutely safe investments, which is commonly linked to lower interest rates. It might be worth to test, whether foundations, in particular those engaged in education, are strongly interested to invest in education buildings, which would also fit to their engagement purpose.

A6.4.7 Income Generation

The revenue stream from this investment consists of monthly rents, which will include also the interest rate. The building itself is an asset and a guarantee, reducing at least the risk of mis-investment. As demand for education is likely to increase even, in several sectors, it should be possible to enter into long-term assignments. A more flexible design, e.g. allowing use as childcare centre as well as school, for example, would further enhance the long-term profitability of this investment.

Eventually, depending on the nature of the education provider, it might even be possible to use buildings also for evening classes, which requires, though, a departure from the presently narrow approach to establish either childcare centres or schools or adult learning centres. Diversifying the usability of such facilities might become even more of a win-win-situation for municipalities/education providers and investors at the same time, as buildings can be used for more than 8 hours a day only.

A6.4.7.1 Payees

Core payees are the education providers renting the education buildings, depending on the particular set-up nurseries, schools, colleges and/or universities. Depending on the nature of the education provider, payee may be a public or a private (not-for-profit/for-profit) entity.

A6.4.7.2 Income collection

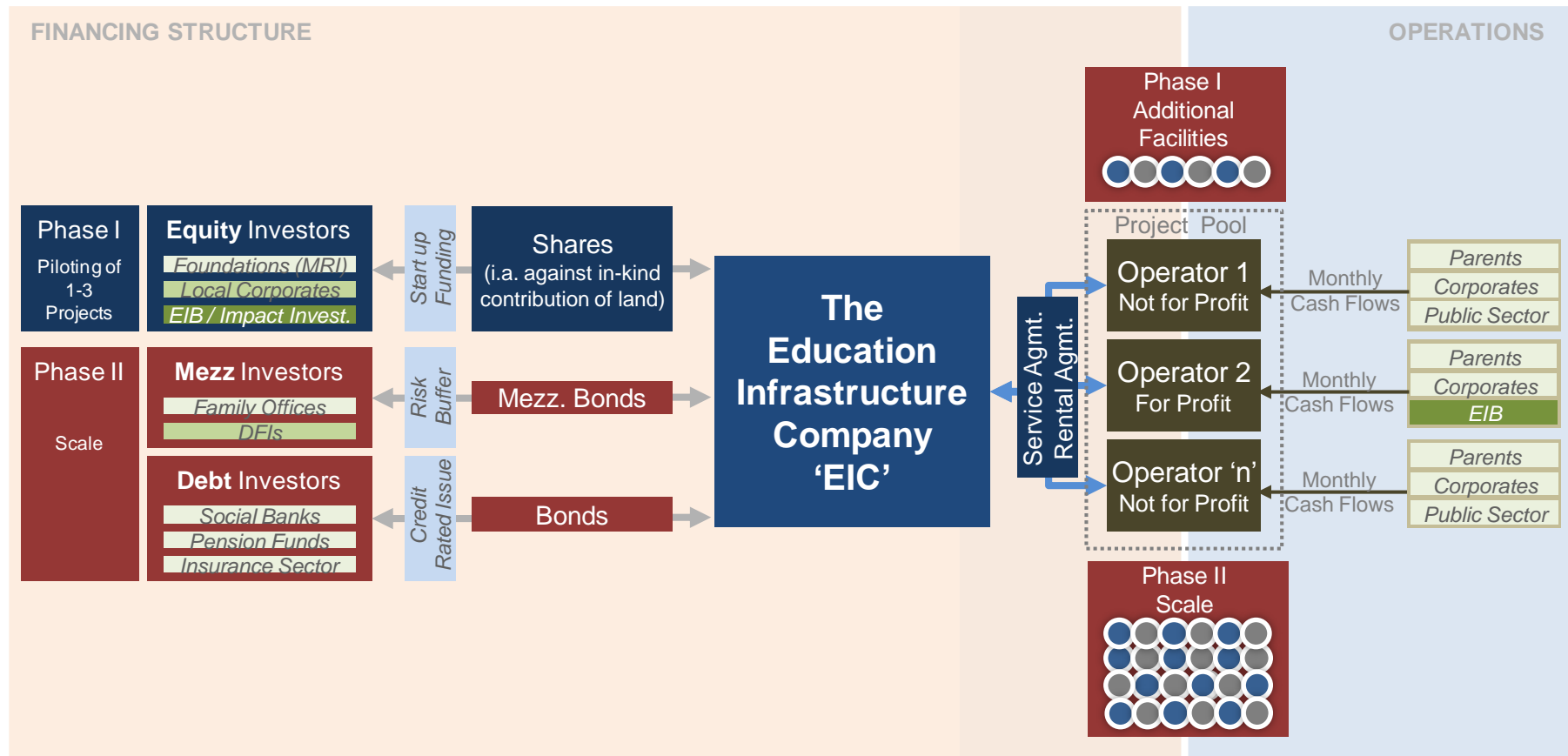
The monthly revenue stream covers the capital recovery costs as well as the interest rate, whereas the amount finally will depend on supply and demand. At the moment, it appears that not too many investors/companies are around engaging in this kind of service, suggesting that the rate of return might even be more attractive. However, a factor that might interfere, is that the construction sector is in high demand in several locations in Germany, which may drive costs for planning and construction and/or lead to delays in realisation.

A contract will be signed between the EIC and the education provider covering the conditions of the contract, the amount to be paid, securities and other liabilities as well as its duration. It will also cover regulations concerning the further proceedings, and, if applicable, the conditions for a transfer of the building to the education provider, the municipality, at the end of the contracting period.

A6.4.7.3 Time period

The period over which investment is repaid depends on the particular nature of the specific investment/construction. Commonly, such a contract will cover at least a period of 20, if not even up to 50 years, a “normal” life-time for buildings and comparable assets.

Figure 15. Outline model for the EIC



A6.4.8 Service Provider

Service provider is the EIC – Education Infrastructure Company as outlined more in detail below and Figure 15 above.

A6.4.9 Project Delivery Framework

A6.4.9.1 Project manager

The Education Infrastructure Company could be a suitable project manager, who enters into agreements with the EIB on the one hand and the construction companies on the other hand and eventually with the education providers.

A6.4.10 Financing Model

The EIC would collect the funds from its investors and pay the planning and construction companies for their works.

A6.4.11 Assumptions / Risks

There are two ways of operation: either the EIC plans and constructs the buildings based on their market analysis, and bears the risk whether an education provider enters into a renting agreement or not. This approach would be linked with a higher risk and possibly lead to higher interest rate demands from investors. While private education providers might easily enter into such agreements, public providers are very likely required to tender for the most cost-effective offer, in principle. Depending on the present status of the local market for education buildings, one might come to the conclusion that the EIC is very likely to be awarded. Market analysis would suggest the planning and construction of buildings only if no comparable building complex is already existing and/or in the planning stage. Another risk might be that other investors/construction companies become active if they realise that a potential need for such buildings exists. If the EIC manages to enter into a co-funding or guarantee agreement with the EIB, it is very likely to get better loan conditions and/or more capital investors at lower rate of return expectations than competitors. However, a small risk remains that the building cannot be rented-out as expected.

A second option is that the EIC aims to enter into an upfront agreement with the education provider/municipality/ministry, which could be considered an interference into competition. A slight modification of this approach would be a tender process, commencing before all planning and construction works take place. This is most likely to be the procedure that clearly meets all legal requirements for tender processes. If the EIC has entered already into a co-funding agreement with EIB, it appears realistic to assume lower costs because of lower interest rates for loans and/or lower return expectations from investors, which would mean that it can offer services at lower costs, leading to a competitive advantage. However, the limited experience with larger projects would be a restriction that could affect the chances to win the tender.

A6.4.12 Aggregation Potential

A6.4.12.1 Likely spatial scale

Core responsibility for education lies with municipalities for childcare centres, schools and adult learning centres. This, however, means that funding/investment volumes are modest, not to say too small for EIB support. In order to generate economies of scale, aggregation to state level initiatives might be an option.

A6.4.12.2 Possible platform sponsors

Either state owned banks, such as Landesbank Baden-Wuerttemberg or Nordbank are state-level sponsors, possibly in co-operation with the responsible ministries (e.g. ministries of family affairs for childcare centres, education ministries for schools and, if applicable, adult learning and higher education/science ministries for higher education).

Another possible sponsor is KfW, providing various loan facilities touching this sector, such as municipality loan facilities etc.

A6.4.13 Summary of the investment opportunity

The current near zero interest rate environment in the EU makes the infrastructure asset class attractive to investors as it promises slightly higher returns than state issued bonds while still having a sovereign body as the counterparty with a perceived low credit risk – even if the ultimate obligor of the payments is a German municipality instead of the federal government.

Private for-profit or third sector not-for-profit operators of schools or childcare facilities do not enjoy the benefit of the credit quality of a German public body. They are often small in overall company size, rarely active across larger geographies and generally not seen to be a stable partner over 20-30 years. In addition, their ability to pay back an investment into a new school building may be impeded by demographical developments, urbanization, or other risks, reducing the number of students in their buildings. An investor would see these operators naturally as a more risky counterparty than a regional public school system.

The perceived weakness of these private sector operators therefore impedes their ability to raise capital from institutional investors for new school buildings or childcare facilities. They are required to rent property from third parties.

Establishing the EIC would innovatively access institutional capital pools in the private sector to fund childcare facilities and school buildings alike. Pooling a large variety of locations and operators would overcome single-project risks and allow for the diversification needed to attract the capital at relatively low cost.

Unlike classical real estate funds, the EIC would be an active owner rather than a landlord. It could stipulate state of the art educational standards (more ambitious than those set by public authorities) on its premises and ensure operator discipline by establishing monitoring programs against such standards.

For the first time, upfront capital would be raised from outside the public sector to build additional schools and childcare facilities at scale with the vision to setup a long term and sustainable funding model based on pay per use contributions.

Once a larger pool of facilities has been built, the roll out of scholarship programs and other socially supportive measures (for example in financially stressed areas) could start benefiting from the diversification inside the pool.

A6.5 Social Innovation Fund (Portugal)

The Social Innovation Fund (SIF) is a €112 million financing programme with €95 million from the European Social Fund (ESF) currently being developed by the Portugal Social Innovation initiative.⁶⁰ According to the ex-ante evaluation of financial instruments in the Portuguese ESIF Operational Programme, €17 million of government funding have been committed to the programme on top of ESF budget.⁶¹ Furthermore, co-financing from financial intermediaries and beneficiaries is expected.

The SIF forms part of Portugal's social innovation initiative, which has been launched at the end of 2014 with support from EU structural funds. Both the initiative and the SIF are coordinated by the 'Mission Structure Portugal Social Innovation'.

The programme will cover two separate sets of financial instruments, presented in Table 2.

Table 2. Social Innovation Fund double approach

Purpose and target group	Financial instrument	
1. Financing innovation in established social enterprises (more 'process innovation centric')	Loans	Debt (Asymmetric risk taking)
2. Financing growth and consolidation of social start-ups (more 'product/services innovation centric')	Social Entrepreneurship Funds Business Angels Social Investment Operations	Equity and quasi-equity (Asymmetric return sharing)

Source: Portugal Social Innovation presentation: 'Social Innovation Fund (SIF) – Background information'

A6.5.1 Target Sector (pre-school, primary, secondary, tertiary, higher)

The Social Innovation Fund targets social innovation and entrepreneurship across sectors, which may include education and training activities.

The fund focusses on projects that are seen to complement – and not replace – public provision, for instance projects to pilot and extend innovative approaches to providing social services or training/education offers for disadvantaged groups.⁶²

A6.5.2 Capital (Infrastructure)

Expenditure in infrastructure and retrofitting are not eligible under the ESF. This means that capital expenditure would be for the moment outside the scope of the SIF. The use of the EFSI could allow covering infrastructure.

A6.5.3 Revenue (Additional Services / Lending facility)

The Social Innovation Fund is a fund of funds. It will channel funds through social investment intermediaries such as credit institutions and social entrepreneurship funds. The recipients will in all cases be social enterprises. Revenue will be earned through interest on loan instruments, and returns on equity investments (e.g. through shares of future revenue).

⁶⁰ Portugal Social Innovation website, Social Innovation Fund.
<http://inovacaosocial.portugal2020.pt/index.php/programas-de-financiamento/fundo-para-a-inovacao-social/> (only in Portuguese) [17/02/2017].

⁶¹ Quaternaire Portugal (2015). Ex-ante evaluation of the financial tools of Portugal 2020 programmes.

⁶² Source: desk research and interviews conducted by ICF in the period December 2016 - February 2017.

A6.5.4 Investment context

A6.5.4.1 Government / Market failure leading to under-investment / public expenditure

The aim of the Social Innovation Fund (SIF) is to support social impact investment by mitigating difficulties of social enterprises to access finance in 'regular' financial and equity markets. It covers two separate financial instruments: loans to social enterprise and equity investment in start-ups.

An ex-ante evaluation of financial instruments in the Portuguese ESIF Operational Programme assessed the need and total financing gap.⁶³⁶⁴ The ex-ante evaluation identified the following main market failures:⁶⁵

- Low capitalisation, high financing needs and growing demand; usually no own-resources on social-enterprises for activities piloting new approaches/innovation.
- No appropriate products from financial institutions, such as commercial banks:
 - Risk: perception of high risk and no collateral
 - Return: high transaction costs for expected below-market returns
 - Impact: positive externalities not recognised or taken into account as banks cannot monetise them
- Maturity gap (no availability of credit for longer maturities)
- Lack of intermediaries in social financing and social investment in Portugal
- Reduced diversity of available financing options. High fragmentation and short-term drive of existing philanthropic financing

Overall, two segments and types of needs were observed:⁶⁶

- Access to funding for social enterprises for organisational improvement and innovation
 - Established social enterprises can access funding from financial institutions for their mainstream activities but not for organisational improvement and innovation (e.g. for spin-off or pilot activities). Lending conditions offered are not adapted to the specific needs of these entities namely in terms of maturity which tends to be longer in this type of projects. Also, there is general insufficient collateral or, alternatively, very high risk perceived by the bank.
- Social start-ups.
 - Portugal currently sees a high number of new entrepreneurs active in social innovation across areas like health, education and training. They sometimes combine business start-up with a social purpose, in the form of a company or an association. Seed funding through equity or quasi-equity is usually unavailable for these types of start-ups.

The ex-ante assessment estimated the following financing gaps across a variety of fields (education, health, social protection, employment, and justice):

⁶³ Portugal 2020 is the partnership agreement adopted by Portugal and the European Commission for the application of the five European Structural and Investment Funds.

⁶⁴ Quatenaire Portugal (2015). Ex-ante evaluation of the financial tools of Portugal 2020 programmes.

⁶⁵ Source: Portugal Social Innovation presentation: 'Social Innovation Fund (SIF) – Background information'. Sent to ICF (not available online).

⁶⁶ Based on interview with representatives of the Mission Structure conducted by ICF on February 2017.

- For investment in innovation by social economy entities: €281.2 million
- For investment in social start-ups: €28.6 million

Interviewees and the material reviewed did not provide with specific estimates covering education and training only.

A6.5.5 Scale of investment / expenditure required

A6.5.5.1 At project level – resources required for a typical project

Average financing needs will differ from project to project, but typically they would be expected to be of smaller scale.

A6.5.5.2 At portfolio level

The Social Innovation Fund (SIF) has a total funding envelope of €112 million. It has been allocated €95 million of ESF funding. The government contribution (15%) corresponds to €17 million. According to the ex-ante assessment, a leverage effect could happen through co-investment by retail banks that could reach a similar amount to that made available by structural funds.

Table 3. Social innovation fund – Programme budget and leveraged investments

Source of funding	Amount	
ESF	€95,000,000	Programme budget
Public national funds	€16,764,706	Programme budget
Possible leveraged co-financing from financial intermediaries	€94,939,995	Leveraged investment
Private funds of final beneficiaries (social enterprises)	€72,647,055	Leveraged investment

Source: Quaternaire Portugal (2015). Ex-ante evaluation of the financial tools of Portugal 2020 programmes.

A6.5.6 Private / Social Sector Finance Provider

At this stage, the SIF is supported entirely by ESF money stemming from the Portuguese operational programme as well as a small contribution from the Portuguese government. Financial instruments in the SIF have been developed in cooperation with the European Investment Fund’s advisory hub. The use of EFSI funding to scale up the SIF budget envelope, and the involvement of private investors is under consideration.

This would have a number of advantages:

- EFSI would allow more flexibility in the set-up of individual financial instruments, as ESF restricts the use of funds to CAPEX investments and mandates very strict due diligence
- EFSI would allow to cover projects in regions which are currently not eligible under the SIF – for example the metropolitan area of Lisbon is currently not eligible for SIF support;
- According to interviewees, financial intermediaries in Portugal would prefer SIF to be funded through EFSI rather than ESF as they perceive EFSI to have fewer constraints as regards the setup of individual instruments.

Overall, the project would be suitable for the use of EFSI funding if other social/private co-investors can be found that suit the requirements of the programme. There is a clear preference on the side of the managing authority for the involvement of a single large social investor, rather than corporate investors strictly interested in

financial returns. Furthermore, a SIF using EFSI would need to be set up in a complementary way to what is currently being offered.⁶⁷

A6.5.7 Income Generation

Currently ESF funding is being made available entirely to financial intermediaries participating in the SIF programme. The Mission Structure does currently not generate any income from the SIF. In the future, income could be generated through management fees paid by financial intermediaries, and profit participation in successful social enterprises.

A6.5.7.1 Payees

Payees are social enterprises who make use of the loan or equity instruments available through the SIF on the contractual basis that they repay loans and related interest payments / agreed dividends.

In the future, financial intermediaries could be asked to pay small fees into an EFSI platform, in return for accessing part of the SIF fund.

A6.5.7.2 Income collection

No information is available as the Mission Structure currently doesn't collect income.

A6.5.7.3 Time period

Project duration and maturities will differ across the various types of projects and social enterprises to be supported. As a general rule, maturities for financial products supporting social enterprises will be longer than for conventional enterprise loans.

A6.5.8 Service Provider

The final service providers are social enterprises receiving loans or equity investments through the SIF.

Portugal Social Innovation is currently negotiating with a number of commercial banks to act as financial intermediaries. As outlined above, potential financial intermediaries seem to prefer EFSI over ESF in delivering the SIF programme. Overall, EFSI is perceived to have lower administrative overheads than the ESF and would allow for more flexible design of individual financial instruments under the SIF.⁶⁸

A.6.5.9 Project delivery framework

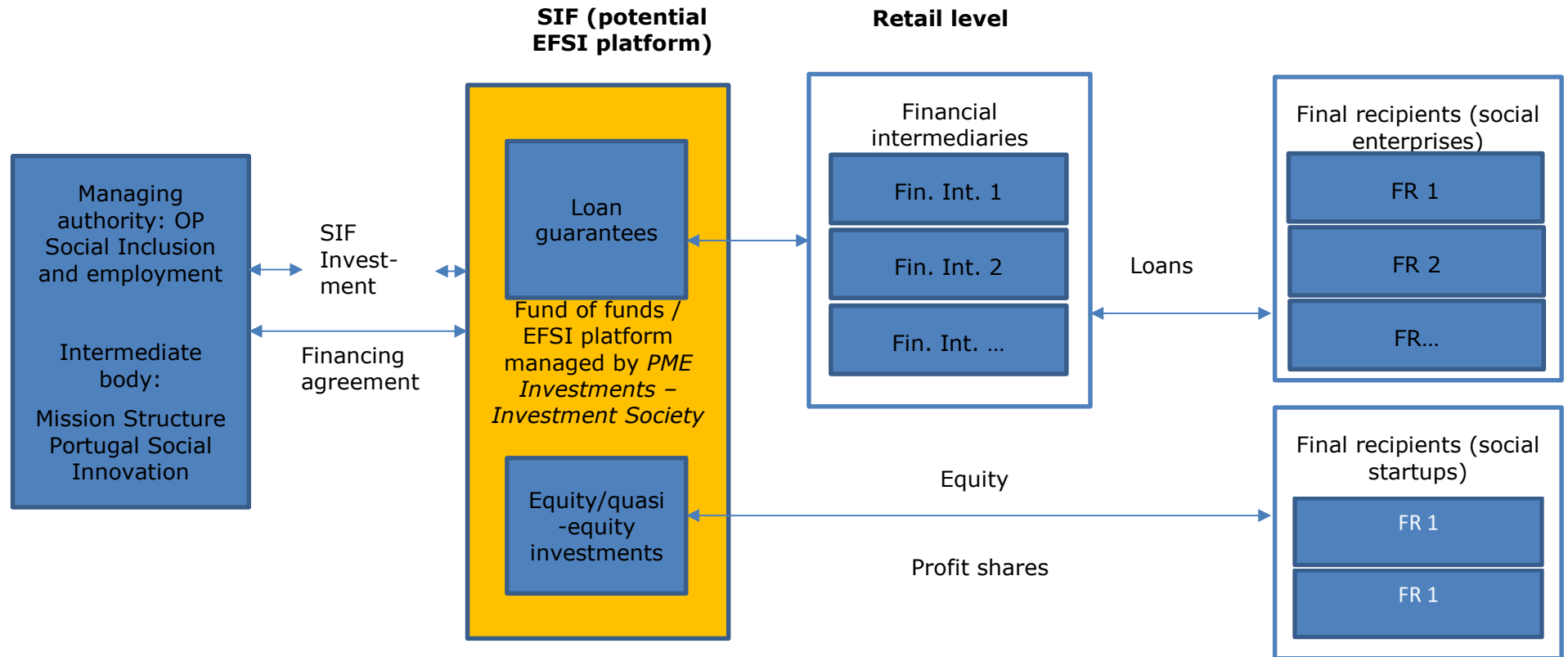
A6.5.9.1 Project manager

The managing authority of the Social Innovation Fund will be the Operational Programme 'Social Inclusion and employment', one of the thematic operational programmes under Portugal 2020. The 'Mission Structure Portugal Social Innovation' will act as intermediary body.

⁶⁷ Based on interview with representatives of the mission structure conducted by ICF on February 2017.

⁶⁸ Ibid

Figure 16. Project Delivery Framework⁶⁹



Source: Portugal Social Innovation presentation: 'Social Innovation Fund (SIF) - Background information'.

⁶⁹ Based on interview with representatives of Portugal Social Innovation.

A6.5.10 Financing Model⁷⁰

The financing model for the current SIF would be maintained if EFSI funds were used. It is set up as a fund of funds supporting both guarantees to financial intermediaries to help supply of lending products to social enterprises, and secondly invest directly in social start-ups with equity and quasi-equity.

Income to a potential EFSI platform could be generated through fees from financial intermediaries, as well as profit participation from successful social start-ups supported.

Interviews indicated that EFSI could support the current SIF and the fund manager as follows:

- EFSI would help scaling up activities;
- EFSI could increase the stop value for guarantees offered to financial intermediaries;
- EFSI would allow to support enterprises based in regions currently not eligible for SIF support
- EFSI would allow CAPEX investment.

A6.5.11 Assumptions / Risks

The main risk identified is the potential crowding out effect of using EFSI and ESF. Complementarity between the two funds will need to be ensured. Also, there could be a limited number of financial intermediaries interested in participation.

A6.5.12 Aggregation Potential

A6.5.12.1 Likely spatial scale

National

A6.5.12.2 Possible platform sponsors

The fund of funds manager will be *PME Investments – Investment Society*, which is a financial society of the public business sector, under the supervision of the Bank of Portugal.⁷¹ Its aim is to promote financial offers to companies, in particular SMEs.

A6.5.13 Summary of the investment opportunity

The investment opportunity consists of scaling up the Social Innovation Fund in Portugal to fill a financing gap of an estimated €197 million.⁷² Income generation would come from social enterprises supported, with the government or the EIB providing a certain level of guarantees in case incomes don't materialise.

⁷⁰ Based on interview with representatives of the mission structure conducted by ICF on February 2017.

⁷¹ Website: <http://www.pmeinmentos.pt/en/>

⁷² Proportion of financing needs identified by ex ante assessment not covered by current SIF programme budget.

A6.6 Social Impact Bond (SIB) interventions in education & training (Portugal)

This project focuses on investment opportunities to extend the use of SIBs in education and training in Portugal. The box below presents the definition of SIB used in Portugal.

Social Impact Bonds

Social Impact Bonds are defined in Portuguese legislation as 'reimbursable economic support, based on a partnership contract, to fund innovative solutions for the delivery of public services aiming at attaining results and cost reduction'.⁷³

The Social Investment Laboratory was the first entity in the country to develop a SIB (see below). This entity explains SIBs as follows:⁷⁴

SIBs are a financial tool in which a government entity signs an agreement with social investors, based on the delivery of specific results.

Based on this contract investors fund the delivery of a service in the medium term.

This service is implemented by social innovation initiatives and aims at improving certain social outcomes (such as completion of education or training, as well as employment outcomes).

If results are attained, the public sector remunerates the investors: it reimburses investment and provides a financial return adjusted to the risk of the project and the extent to which agreed social outcomes have been attained.

If outcomes fail to meet an agreed threshold, the government does not remunerate investors, hence the investor bears the risk of the intervention failing.

The first Portuguese SIB was developed in 2015 (Junior Code Academy – see below). In 2016, the 'Mission Structure Portugal Social Innovation' introduced an outcome fund for SIBs.

A6.6.1 Target Sector (pre-school, primary, secondary, tertiary, higher)

Based on qualitative research and interviews conducted, private investment in education in Portugal is politically more acceptable in projects that are seen to complement – and not replace – public provision, for instance projects to pilot and extend innovative approaches.

The Portugal Social Innovation initiative launched in December 2014, coordinated by the 'Mission Structure Portugal Social Innovation' and co-funded by EU Structural Funds, focuses on innovation and social entrepreneurship. Among other instruments, it has introduced SIBs, which cover all social areas including education and training.

The mission structure cooperates with public authorities to identify priorities in the different public policy areas. Table 4 presents the priority areas included in the 2016 call, some of which can cover projects related to education and training, in particular related to Vocational Education and Training. At the time of country research for the present study, there was no information available on the projects approved under this call.

⁷³ Resolution of the Council of Ministers nbr. 73-A/2014 of 16 December.

⁷⁴ Social Investment Laboratory website, <http://investimentosocial.pt/o-laboratorio/titulos-de-impacto-social/>

Table 4. Priority areas under the 2016 call on Social Impact Bonds

Public policy areas	Priority areas related to education and training
Social protection	Socially sustainable citizens (0-18 years-old) Socially sustainable families Socially sustainable territories Ageing, dependency and support to caregivers
Health	Quality of health care Nutrition Diabetes HIV, sexually transmitted diseases, viral hepatitis
Justice	Prevention of relapse – capacity building, training and rehabilitation of imprisoned and former imprisoned people and young people Prevention of delinquency – citizenship, justice and civic education of young people
Employment and vocational education and training	Youth not in Education, Employment or Training (NEET) Long-term unemployed Low qualified unemployed Young people attending vocational education and training courses Socio-professional insertion of people with disabilities

Source: notice POISE-39-2916-07(p. 29)

Interviewees suggested that the education and training area will be the focus of the 2017 call.⁷⁵ There is currently no information about the projects that will be supported by the fund for SIBs. The box below summarises the only SIB project developed to date in Portugal, the Junior Code Academy.

Project example: Junior Code Academy⁷⁶

Junior Code Academy is the first SIB developed in Portugal. It was created by the Social Investment Laboratory.⁷⁷

The Junior Code Academy started in 2015 as a pilot project with the main purpose of testing the use and interest in SIBs. It was focused on the teaching of computer programming to pupils from the third year of the first cycle of Basic Education (8 to 9 years-old). Based on research evidence, this activity was expected to improve problem solving competencies and pupils' school performance. The project was set up with the

⁷⁵ According to the representative of the mission structure interviewed by ICF in December 2016.

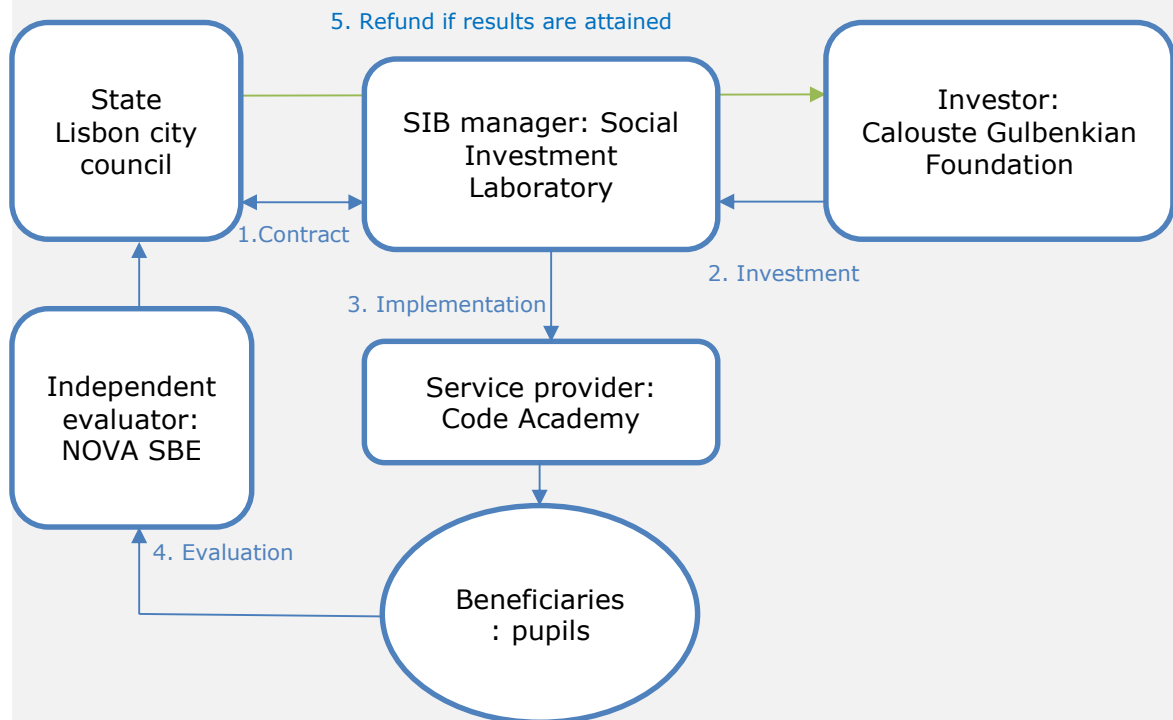
⁷⁶ Source: interview with Social Investment Laboratory.

⁷⁷ The Laboratory is an initiative of the Calouste Gulbenkian Foundation and the IES–Social Business School, supported by the UK NGO Social Finance. Its goal is to stimulate social investment in Portugal. See; <http://investimentosocial.pt/o-laboratorio/sobre/>

Lisbon City Council as commissioner. The Calouste Gulbenkian Foundation⁷⁸ acted as social investor, with repayment by the city council subject to specific objectives being achieved (see below). The educational programme was developed by the Code Academy in cooperation with Aveiro University, and implemented by the Code Academy.

The following figure summarises the implementation of the social impact bond and the stakeholders involved. The numbers indicate the order of the steps followed.⁷⁹

SIB - Junior Code Academy



The Junior Code Academy project was implemented in three classrooms –selected randomly- from three different schools (from different socio-economic backgrounds), covering a total of 65 pupils. Programming activities were developed 2 hours per week during 50 weeks (from January 2015 to June 2016). Total investment amounted to 120,000 Euros.

The intervention will be considered to have performed well if the following results are verified:

10% improvement in school performance in Portuguese and mathematics, according to grades obtained in national exams (compared to a control group); and

10% improvement of problem solving competences, measured by a psychometric test (compared with performance previous to the intervention).

The evaluation results are not yet available.

A6.6.2 Capital (Infrastructure)

There is currently only one SIB outcome fund in the country, introduced by the Portugal Social Innovation initiative. SIBs funded under this outcome fund are not

⁷⁸ Portuguese private foundation of public utility focused on fostering knowledge and raising the quality of life of persons throughout the fields of the arts, charity, science and education. See: <https://gulbenkian.pt/en/the-foundation/about-us/>

⁷⁹ This figure is based on a similar one developed by the Laboratory to explain impact social bonds, available at: <http://investimentosocial.pt/o-laboratorio/titulos-de-impacto-social/>

directed at the creation of financial assets, but focus on supporting the delivery of innovative services.⁸⁰

A6.6.3 Revenue (Additional Services / Lending facility)

SIBs are directed to the delivery of services in the field of public policies. Their impact is measured against specific social results which if attained, are paid for against revenue realised on the government side (tax income) or foregone government expenses (such as foregone unemployment benefits).⁸¹

A6.6.4 Investment context

A6.6.4.1 Market failure leading to under-investment

An ex-ante evaluation of financial tools under the Portuguese Operational Programme for European Structural and Investment Funds⁸² reported the following financing gaps in the area of social innovation:

- €281 million for investment-innovation in social economy organisations
- €28,6 million for innovative social entrepreneurship start-ups

According to the ex-ante evaluation, the Portuguese financial markets are not prepared to provide traditional financing in the field of social innovation and risk capital funds (in particular *Business Angels*) have not yet paid attention to the potential of this sector.

The main financial tool proposed to address these needs is the Social Innovation Fund (see other project description for Portugal). SIBs have been introduced as a way to showcase and test innovative financial instruments, and to complement the Social Innovation Fund. In Portugal there is a lack of historical data in the field of social innovation, and of information on lending to the field. The estimates done as part of the ex-ante evaluation are based on the comparison of the social demand and the existence of financial instruments to address this demand.

A6.6.5 Scale of investment / expenditure required

The overall investment need in the area of social innovation is estimated at €309.6 million. No breakdown is available to estimate the investments required for the area of education and training.

A6.6.5.1 At project level – resources required for a typical project

The 2016 SIB call established that the needs for public funding of each project have to be above €50,000. It does not establish an upper limit. However, the total amount available for this call is €3.5 million. This suggests that individual SIBs are expected to be relatively small-scale and a maximum of 60 projects can be supported per call. If the average project size is similar to the pilot 'Junior Code Academy', the SIB call would be able to support 25 projects.

A6.6.5.2 At portfolio level

The 2016 SIBs call had a budget of €3.5 million, 85% allocated by the European Social Fund and 15% by the Portuguese government, to cover all the fields targeted by the

⁸⁰ Notice of the Operational Programme Social Inclusion and Employment (POISE-39-2016-07). Section 20 on non-eligible expenses.

⁸¹ Portugal Social Innovation Initiative, call 2016.

⁸² Quatenaire Portugal (2015). Ex-ante evaluation of the financial tools of Portugal 2020 programmes. To estimate financing needs the report used estimates from a research project by the IES-Social Business School and the IPAV-Padre Antonio Vieira Institute. Funded by Calouste Gulbenkian Foundation, EDP Foundation, Operational Programme on Competitiveness. Website: <http://www.mies.pt/index.php/en/>

call (social protection, health, justice, employment and vocational education and training). There is currently no information on the budget of future calls.

As discussed in section 0 the estimated financial gaps related to social innovation are well above this figure. Together with the Social Innovation Fund, €98.5 million of funding were provided in 2016.

A6.6.6 Private / Social Sector Finance Provider

The Portuguese Social Innovation Initiative is looking for social investors to support the SIBs selected. Social investors are defined as private, public or social economy entities, with philanthropic or commercial aims, which contribute with financial resources to the development of a social innovation or social entrepreneurship initiative, aiming at social impact.⁸³ They put forward the funds needed for the implementation of the initiative and bear the risk if the outcomes are not attained. In preparatory work for the introduction of its financial instruments, the Mission Structure Portugal Social Innovation identified and contacted potential investors.⁸⁴ There is no public information on the names of social investors involved in the SIB applications to 2016 call.

The potential to involve more commercial investors or the EFSI is perceived as low at this stage. As SIBs are a new financial tool, it is too early to assess what will the interest in SIB be and the potential for their expansion in terms of size and number.⁸⁵

A6.6.7 Income Generation

Currently, the Mission Structure acts as guarantor, paying outcomes upon success including a certain margin. Outcome funds come from the European Social Fund (85%) and the corresponding national public contribution (15%).

A6.6.7.1 Payees

The payee is the Portuguese ESF Operational Programme 'Social Inclusion and Employment'. Public sector entities with responsibilities in the public policies relevant to the funded initiatives, commit to facilitating implementation but do not receive funds.⁸⁶

In Portugal, there are still very few examples of social investment, and public authorities are not used to schemes such as SIBs. The concept of payments for results and the need for longer periods of time to establish outcomes conflicts with a tradition based on payments for activities on an annual and recurring basis. The availability of funds is also uncertain given the recent budgetary restrictions to public expenditure (for instance, affecting local authorities).⁸⁷ The Portugal Social Innovation Initiative therefore increases public sector capacity to pay for results by channelling EU funds to this activity. It also creates awareness of practices of payment by results among public authorities, and the possibilities for this form of financing of social outcomes in the future.

Interestingly, the Social Investment Laboratory is currently developing a unit cost database to inform the creation of social impact bonds, similar to the one included in the UK Social Impact Bond Toolkit.⁸⁸

⁸³ Ibid.

⁸⁴ Source: interview with a representative of the Mission Structure Portugal Social Innovation.

⁸⁵ Ibid.

⁸⁶ Notice of the Operational Programme Social Inclusion and Employment (POISE-39-2016-07).

⁸⁷ See for instance the communication from the National Association of Portuguese Municipalities on the 2017 State Budget asking for a recovery of municipalities' financial capacity reduced in recent years, <http://www.anmp.pt/index.php/comunicacao/463>

⁸⁸ Source: interview with Social Investment Laboratory.

A6.6.7.2 Income collection

Currently there is no information available on the projects funded under the first SIB call for proposals in 2016. Therefore it is not possible to provide concrete estimates of the nature and total income that the outcome fund envisages to collect.

Generally however income or gross value added by the SIBs supported depends on the type of outcomes agreed for each project. Income for social investors supporting SIB projects is agreed at project start, by defining prices for different categories of outcomes. These outcome payments will be made by the outcome fund if and when a certain agreed level of success is achieved by the SIB. Prices agreed for each category of outcome will typically take into account the costs of the intervention and the margin/profit desired by the social investors. Income generated on the government side can be spread across various forms of savings and tax revenue – this might include prevention of social benefit and unemployment payments or increased income taxes.

A6.6.7.3 Time period

According to the call for proposals issued in 2016, the duration of the projects will be multiannual, from a minimum of 12 months to a maximum of 60 months.

A6.6.8 Service Provider

Service providers are expected to be social entrepreneurs. In preparatory work for the introduction of its financial instruments, the Mission Structure Portugal Social Innovation identified potential social entrepreneurs through a call for expressions of interest.⁸⁹

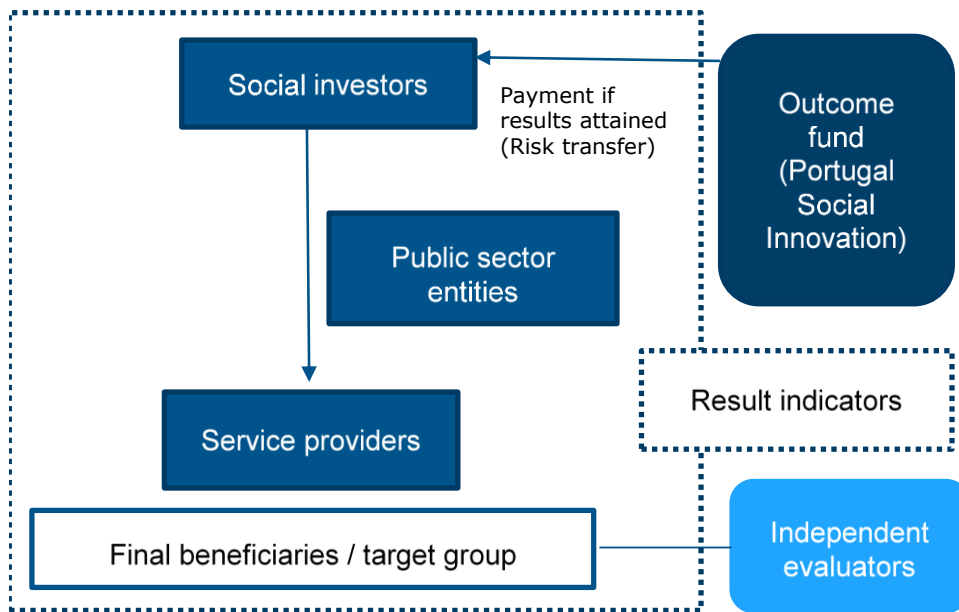
A6.6.9 Project Delivery Framework

The following diagram represents the current delivery model.⁹⁰

⁸⁹ A summary of the responses to the call for expressions of interest is available on the Mission Structure website: http://inovacaosocial.portugal2020.pt/wp-content/uploads/2015/11/Resumo-TIS-MdI_12112015.pdf.

⁹⁰ Source: Portugal Social Innovation website, <http://inovacaosocial.portugal2020.pt/index.php/programas-de-financiamento/titulos-de-impacto-social/>

Figure 17. Delivery framework – Portuguese SIB outcome fund (Social Innovation Initiative)



Source: Portugal Social Innovation website

Whilst there is currently no clear purpose for EFSI in the delivery model, EFSI support could be used to either scale up the outcome fund or offer more attractive outcome prices to potential social investors.

A6.6.9.1 Project manager

The intermediary entity currently managing SIBs is the 'Mission Structure Portugal Social Innovation'. This mission structure is a type of public legal entity with independent management and a limited lifetime (2014-2020). It manages part of the EU structural funds allocated to Portugal and was created with the aim of catalysing the slowly emerging market of social investment in Portugal. It reports directly to the Portuguese government.⁹¹

A6.6.10 Financing Model

The current financing model is explained in the previous sections. There is currently no need for EFSI support to cover SIB investment needs.

A6.6.11 Assumptions / Risks

The review and suggestions to scale up the current Portuguese outcome fund assumes that there is investor interest and investment need beyond the current fund size (EUR 3.5 million per year).

Furthermore, the analysis assumes that the outcome fund is able to identify investable candidate projects, i.e. focussing on social interventions which have clearly defined and measurable outcomes, which if achieved would result in government savings, improved services or additional government income.

A6.6.12 Aggregation Potential

A6.6.12.1 Likely spatial scale

The spatial scale of the current outcome fund is Portugal; this would not change if EFSI were used as a source of additional finance/support.

⁹¹ Source: Resolution of the Portuguese Council of Ministers nbr 73 – A/2014.

A6.6.12.2 Possible platform sponsors

The 'mission structure Portugal', tasked with implemented the social innovation part of the Portuguese ERDF operational programme, is currently coordinating the activity, and would continue to do so until the end of the current operational programme in 2020.

A6.6.13 Summary of the investment opportunity

Portugal currently has a financing gap in the area of social innovation, which could be met by expanding current funding with EFSI financing. EFSI support could be used to either scale up the outcome fund or offer more attractive outcome prices to potential social investors.

This would depend on the existence of investable projects which if achieved would result in government savings, improved services or additional government income.

A6.7 Guarantee scheme for student loans (Portugal)

The loan scheme with mutual guarantee for higher education students, created in 2007, enables financial intermediaries to offer loans with low interest rates. Interest rates are further reduced for students with better academic results (students with an average annual grade of 16 or over out of 20 pay 80% of the interest).⁹² The maximum spread retainable by intermediaries is 1%.

The scheme suffered from the financial crisis in two ways. First, there were less government funds available to provide the counter-guarantee. Secondly, financial intermediaries were covering less risk themselves, resulting in a reduced number of loans being offered.

Since 2010, there was a progressive reduction in the number of loans. Whilst in 2010/11, 4,368 loans (with €50 million of total credit value) were offered, this number decreased to the number of loans was of 1,105 in 2014/2015 (with €12.8 million of total credit value).⁹³ In 2015/2016 the system was not available. According to interviews conducted, this reduction of the funds available and interruption of the programme was a result of the difficult economic situation and the constraints to public spending in recent years.⁹⁴

The scheme is currently being reactivated. A new financial instrument with €10 million of support from the European Social Fund (ESF) is being created with funds from the Human Capital Operational Programme. The mutual guarantee based on this new financial instrument is expected to be launched in 2017.

The new (and previous) mutual guarantee is operated by the Portuguese mutual guarantee association SPGM, which is co-owned by private and public shareholders.⁹⁵ SPGM commits to granting a collective guarantee to loans issued to students.

In the previous setup, the Portuguese government provided a counter-guarantee which covered up to 10% of student loans provided.

A6.7.1 Target Sector

The scheme concerns exclusively higher education including graduate and post-graduate studies. Loans are also available for students that need financial support to participate in an Erasmus+ mobility.

Any higher education student can apply for a loan. In some cases loans are used to complement grants for people who face financial difficulties. The most frequent loan holders are students who applied for a grant and did not receive it, but still have an economic situation that would prevent them from attending higher education without financial support.⁹⁶

According to interviewees, the need of students in Portugal for favourable loans grew over the last years, largely a result of the wider repercussions of the financial crisis and stricter loan conditions on standard loans offered by commercial banks.

⁹² Based on an interview with a representative of the Human Capital Operational Programme conducted by ICF.

⁹³ Data from the Investment Society SPGM, disseminated in the press: newspaper Porto Net (University of Porto) of 27 September 2016, <https://jpn.up.pt/2016/09/27/linha-credito-estudantes-vai-reativada/> [accessed 17.1.2017].

⁹⁴ Based on an interview with a representative of the Human Capital Operational Programme conducted by ICF.

⁹⁵ <http://aecm.eu/spgm-sociedade-de-investimento/> ; 19% are held by private shareholders, 81% by public shareholders.

⁹⁶ Based on an interview with a representative of the Human Capital Operational Programme conducted by ICF.

A6.7.2 Capital (Infrastructure)

The scheme provides a guarantee to allow financial intermediaries to provide student loans. No infrastructure investment is foreseen under this scheme.

A6.7.3 Revenue (Additional Services / Lending facility)

Revenue will be generated for financial intermediaries by interest payments on student loans. There are various ways in which such loans can be structured, depending on the specific part of the student population targeted and individual risk assessments as well as loan amounts needed:

- Mortgage-type loans with an established payment period and fixed monthly payments; and
- Income contingent loans with an established repayment which equals a certain share of annualised/monthly income.

The platform manager and any investors providing the guarantee would be able to leverage fees, usually a once-off processing fee and an annual guarantee fee.

A6.7.4 Investment context

A6.7.4.1 Government / Market failure leading to under-investment / public expenditure

The financial instrument which is currently being developed to reactivate the loan scheme with mutual guarantee was covered by the ex-ante evaluation of the financial tools of the Portugal 2020 Operational Programmes (Portugal 2020 is the partnership agreement adopted by Portugal and the European Commission for the application of the five European Structural and Investment Funds).⁹⁷

The ex-ante assessment calculated that 0.77% of all students attending Portuguese higher education in the 7-year period 2007-2014 received a loan.⁹⁸ It developed two scenarios whereby the proportion of students with a loan would grow up to 2% (scenario A) or 2.5% (scenario B) in year 2023, reaching 7,700 and 9,625 higher education students, respectively.

- A needs assessment was then conducted based on:
- The overall volume student loans provided in Portugal between 2007 and 2014 (€232 million overall, and €33 million each year on average);
- an loan duration of 5 years; and
- average loan payments of €2,297 per year.

Based on these assumptions, for each of the two scenarios, the ex-ante assessment estimates the overall annual financing *needs*:⁹⁹

- Scenario A: 7,700 higher education students with a loan (*2,297 per year) – €18 million
- Scenario B: 9,625 higher education students with a loan (*2,297 per year) – €22 million

The annual financing *gaps* were then calculated by subtracting the average value of loans in the 7-year period 2007-2014 (€6.6 million) from the financing needs above:

- Scenario A: 7,700 higher education students with a loan – €11 million
- Scenario B: 9,625 higher education students with a loan – €15 million

⁹⁷ Quatenaire Portugal (2015). Ex-ante evaluation of the financial tools of Portugal 2020 programmes.

⁹⁸ There was an average *annual* population of 377,502 higher education students in 2007-2014 and 20,227 received a loan over the 7-year period.

⁹⁹ Annual figures for overall needs and financing gaps were financed using 2023 as the base year.

There is no official information on the amounts of loans given to higher education students outside the scheme with mutual guarantee. Based on a desk review of conditions of commercial loans and the fact that only one bank in the country has included higher education among its social responsibility policies, the ex-ante assessment concludes that there is a market failure in this field.

Commercial banks offer loans for students but these require that the student or a third person (typically a family member) can offer collateral.¹⁰⁰ This leaves space for a different type of loan with a mutual guarantee, in particular for students coming from economically disadvantaged backgrounds. In fact, commercial banks in Portugal have observed increased demand from students whilst the loan scheme with mutual guarantee has been interrupted and have approached the government to enquire whether the guarantee will be reintroduced.¹⁰¹

A6.7.5 Scale of investment / expenditure required

A6.7.5.1 At project level – resources required for a typical project

The ex-ante assessment estimated an average annual value of the loan per student/family of €2,297 in 2023 across the duration of the scheme.¹⁰²

A6.7.5.2 At portfolio level

Currently €10 million of ESF funds are foreseen to provide the counter-guarantee for the scheme. If as before, this amount covers 10% of the overall lending during the programme period 2014-2020, overall value of loans provided would be at €100 million i.e. €14 million/year. This value is below the historical values of the loan scheme (e.g. €23 million in 2011/2012, €22 million in 2012/2013), and there are indications that it would not fully cover future demand.¹⁰³

A6.7.6 Private / Social Sector Finance Provider

Investors could be, according to interviews conducted, from a variety of backgrounds. They might range from large institutions to individual enterprises interested in improving the skills base in particular sectors in Portugal.

A6.7.7 Income Generation

Income for investors would be twofold. First, if EFSI were to provide additional guarantees, income via guarantee fees could be generated. Secondly, there will be human capital returns at the firm and societal level.

A6.7.7.1 Payees

Payees would be financial intermediaries which benefit from the guarantee scheme. Indirectly, the fee payments received from financial intermediaries would be financed by the spread on loans offered by these financial intermediaries.

A6.7.7.2 Income collection

Income collection would be managed by the platform manager, SPGM mutual guarantee association.

A6.7.7.3 Time period

The renewed guarantee fund is currently planned to be in operation beyond the current ESF programme period, i.e. until 2023. Using EFSI to provide parts of the

¹⁰⁰ Based on an interview with a representative of the Human Capital Operational Programme conducted by ICF.

¹⁰¹ Ibid.

¹⁰² Estimates using 2023 as the base year.

¹⁰³ Quatenaire Portugal (2015). Ex-ante evaluation of the financial tools of Portugal 2020 programmes, p. 57.

guarantee would make the scheme independent from the ESF programme period and ensure a longer lifetime.

On the level of individual loans provided by financial intermediaries, previously students had to start reimbursing the loan from one year after graduation. In the renewed scheme, the Human Capital Operational Programme is considering to increase the grace period to two to three years.¹⁰⁴

In the former loan scheme, the reimbursement period for individual loans was of six to ten years; usually the length was set to twice the study period.¹⁰⁵ There is currently no information on whether the renewed loan scheme will introduce any changes to the length of the reimbursement period.

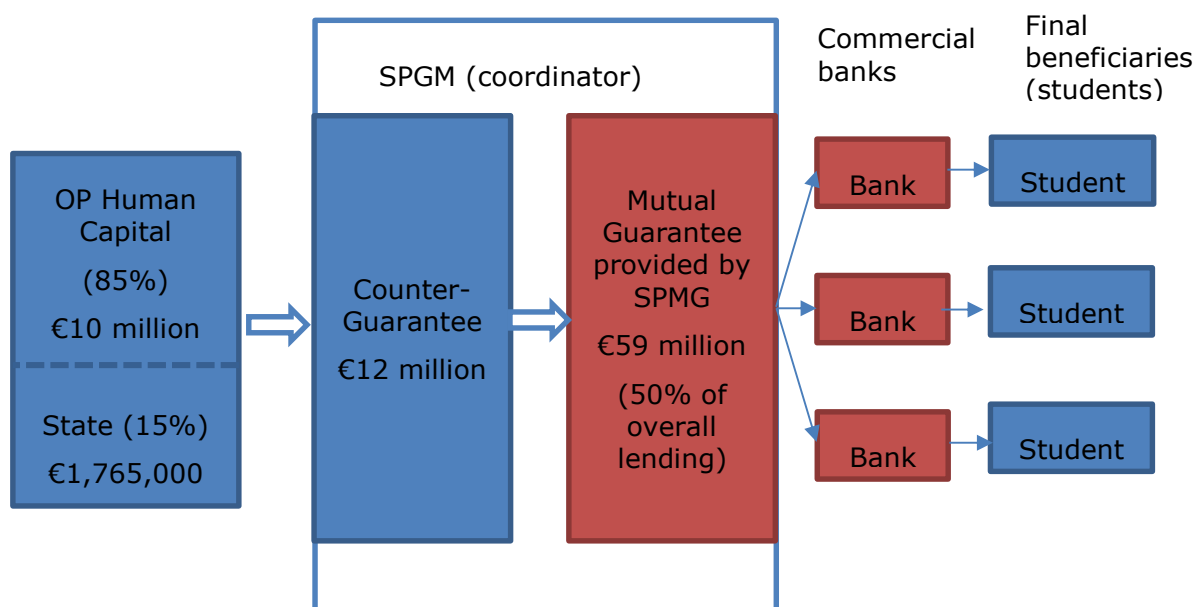
A6.7.8 Service Provider

The loan scheme for higher education students, as in the past, will be implemented by financial intermediaries, in most cases commercial banks. The entity coordinating the guarantee fund is SPGM-Investment Society, a mutual guarantee society. ESF funds are used to provide a counter-guarantee against the prime guarantee fund.

A6.7.9 Project Delivery Framework

Figure 18 assumes a total lending volume of €117,650,000, based on the ex-ante assessment, the 10% risk coverage by the OP Human Capital and the State (€11,765,000). This would correspond to a total bank investment of €117,650,000. The mutual guarantee societies would cover 50% of the bank lending, with a stop value of 15%.

Figure 18. **Delivery framework**



Source: based on ex-ante assessment.

A6.7.9.1 Project manager

The mutual guarantee association SPMG has been managing the first iteration of the guarantee fund, and is due to manage the revised scheme.

¹⁰⁴ Based on an interview with a representative of the Human Capital Operational Programme conducted by ICF.

¹⁰⁵ Newspaper Porto Net (University of Porto) of 27 September 2016, <https://jpn.up.pt/2016/09/27/linha-credito-estudantes-vai-reativada/> [accessed 17.1.2017].

A6.7.10 Financing Model

There are ongoing discussions on the potential use of EFSI for the student loan scheme with mutual guarantee.¹⁰⁶ The EFSI could mitigate the risk to banks and reduce the stop loss. For instance, currently a 15% of risk coverage is being discussed but this could be increased to 20% or 25%.¹⁰⁷

In addition, if the currently envisaged overall lending volume is deemed not sufficient to meet the need for affordable student loans in Portugal's Higher Education sector, a further use of EFSI could be to increase the size of either the counter guarantee or the prime guarantee.

A6.7.11 Assumptions / Risks

The obvious risk of providing a guarantee fund is the risk of default. According to the ESF managing authority, the rate of default during the period of the previous scheme was 5% (€5 million out of €100 million of lending provided between 2007-2014).¹⁰⁸

However, in the ex-ante assessment, commercial banks interviewed considered the rate of default above the 10% stop value.¹⁰⁹ There is a clear interest from financial intermediaries to increase the stop value of the guarantee.

The Human Capital Operational Programme is considering increasing the government counter guarantee to 15%. This would address some of the banks concerns about the scheme, also taking into account that banks are more reluctant to risk after the financial crisis.¹¹⁰

A6.7.12 Aggregation Potential

A6.7.12.1 Likely spatial scale

The guarantee operates at the national level in Portugal, and this would also be the likely scale if EFSI involvement was deemed useful. Due to different legal and political frameworks, it is unlikely that this scheme would be suitable for a cross-border expansion across more than one EU Member State.

A6.7.12.2 Possible platform sponsors

The representative of the SPGM Investment Society explained that they could act as platform sponsors.¹¹¹ It would be good to combine structural funds and the EFSI procedures so as to reduce red tape.

A6.7.13 Summary of the investment opportunity

There are a number of ways in which EFSI might be used to scale up and increase the reach of the guarantee scheme.

First, EFSI could help to increase the counter guarantee and address concerns by financial intermediaries that the stop value of 10% is insufficient;

Secondly, EFSI could help increasing the overall size of the guarantee, if the currently estimates of the financing gap are exceeded by actual demand; and

¹⁰⁶ Based on an interview with a representative of the Human Capital Operational Programme conducted by ICF.

¹⁰⁷ Based on an interview with a representative of the SPGM – Investment Society and the Portuguese promotional bank (Financial Institution of Development).

¹⁰⁸ Based on an interview conducted by ICF.

¹⁰⁹ The previous iteration of the scheme guaranteed 100% of each loan with 'stop loss' of 10% of the global portfolio of each bank. Source:
http://pofc.qren.pt/ResourcesUser/Noticias/Geral/20100205_Apresentacao%20SPGM.pdf

¹¹⁰ Ibid.

¹¹¹ Based on an interview conducted by ICF.

Thirdly, the scheme might be expanded to cover EU nationals on top of Portuguese students.

A6.8 Investment in Higher Vocational Education (Sweden)

This project idea describes a possible expansion of the higher vocational education sector in Sweden using EFSI-funding.

A6.8.1 Target Sector

The target sector for this project example is higher vocational education (HVE), which is post-secondary vocational training. In order to enter such programmes in Sweden the student has to complete secondary school. The HVE “collects post-secondary education outside the university/university college sector”. The HVE-programmes are co-developed together with the business sector with the aim of meeting labour market competency needs and supporting people into employment (Skolverket, 2009). HVE programmes are usually designed against specific competency or skill needs in the labour market (Bergqvist, 2017). As the programmes are adjusted and developed according to labour market needs, the educational programmes’ content and focus vary from year to year (Skolverket, 2009).

The majority of HVE-programmes in Sweden are between 1 and 3 years long (Bergqvist, 2017)). The year-long programmes lead to a higher vocational education diploma (*yrkeshögskoleexamen*) and programmes of two years or longer lead to a “qualified higher vocational education diploma” (*kvalificerad yrkeshögskoleexamen*). In the latter case, at least a quarter of the programme has to be at a place of work. This is referred to as “learning by employment” (*lärande i arbete*) (MYH, 2017d).

The HVE is set-up to meet labour market needs for qualified labour with post-secondary education. Thus, HVE can thus be considered to provide specialised skills and competencies at the level of post-secondary education. For training elements that also exist at the upper secondary school level, the HVE-programmes should lead to roles with more complex and advanced tasks compared to the roles attained after finishing only upper secondary school (MYH, 2016, p.15). An education at the HVE-level corresponds to the European Qualification Framework (EQF) level of 5 and 6.¹¹²¹¹³ As a comparison, upper secondary school corresponds to level 4 and a Bachelor’s degree is equivalent to level 6.¹¹⁴

The educational attainment of the admitted students to the HVE varies. The majority of the admitted students have a secondary education (66% in 2014), whereas the second largest group of students have a post-secondary education less than three years (20% in 2014) and as much as 12% of the admitted students had at least three years post-secondary training (MYH, 2016, p.36).

A6.8.1.1 The structure of the Swedish HVE-sector and its different actors

Figure 19 below presents an overview of the structure of the Swedish HVE-sector and its different actors.

The main actors are the Swedish National Agency for Higher Vocational Education (*Myndigheten för Yrkeshögskolan*, MYH) and the educational providers, as well as the business sector which participates in HVE programmes. MYH is a government agency under the Department for Education. The agency is responsible for monitoring and certifying the quality of a variety of educational offers, to ensure they satisfy the

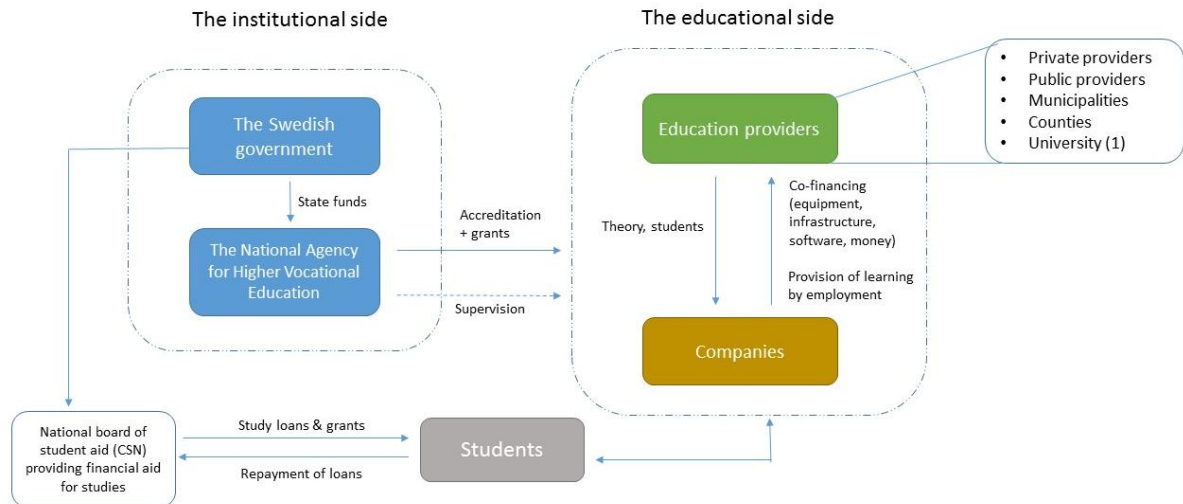
¹¹² EQF level 5 translates to: “Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge” and “a comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems”.

¹¹³ EQF level 6 corresponds to: “Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles” and “advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study”.

¹¹⁴ More information here: <https://ec.europa.eu/ploteus/content/descriptors-page>

labour market's needs (MYH, 2017c). In addition, the agency allocates government grants to certified programmes. Apart from Higher Vocational education (*Yrkeshögskolan*), the agency oversees Arts and Culture education (*Konst- och kulturutbildning*) and translator education (*Tolkutbildning*).

Figure 19. Overview of Swedish HVE-sector and its actors as of today



Source: ICF analysis

Providers apply to the MYH to be accredited against quality standards of HVE as well as the quality of programme delivery. Each year, the agency accredits a selection of programmes and awards them government grants or special funds. Accreditation from the agency is seen as an important quality stamp for providers, according to a stakeholder from one of the largest HVE-providers (Yngvesson, 2017). The grants cover a major part of the costs for running the programmes (Bergqvist, 2017) and are proportional to the number of students (MYH, 2014). As the emphasis on the working-life is very high in HVE, employers should take the initiative to start a HVE-programme (Lind and Westerberg, 2015). It is crucial that the education has a very close connection to the business sector as well as is developed in collaboration with representatives from the business sector (MYH, 2017g). Thus, co-financing from the participating businesses is required on top of the government grants, and supports the applied part of the programmes (such as the learning by employment component), as well as occasionally the theoretical part (such as being involved in lecturing) (Bergqvist, 2017; MYH, 2016b). Finally, a majority of the executive board of an educational programme has to consist of representatives from the relevant business sector (MYH 2017g).

Programme applications that are rejected by the agency can continue in other forms outside of the agency's responsibility and without accreditation – however these programmes then are not allowed to carry the HVE (*Yrkeshögskola*) label (Bergqvist, 2017).

HVE programmes in Sweden are offered by different types of educational providers: state universities and university colleges; municipalities; counties; and private providers (MYH, 2017b; MYH). Some of the largest private providers are Nackademin and schools within the company group Academedia (Bergqvist, 2017). The latter runs a variety of educational companies within different educational sectors (from pre-school to adult education) (Academedia, 2017).

Private providers have played a large and increasing role in developing the Swedish HVE-sector (Bergqvist, 2017). Grants from MYH to private providers increased by 26% between 2011 and 2015. In 2015 more than 95 million Euro was granted to private

providers, which is equivalent to 54% of all the paid grants from MYH; this is the largest share granted compared to any other HVE-provider (MYH, 2016b, p. 24).

Private education providers constitute the largest group of HVE-providers. In 2015, 55% of HVE educational providers were private – only a slight increase from 2012 where the share was 51% (MYH, 2016, p. 18). In 2015 there were 227 education providers of which 125 were private; 95 were from local municipalities; 6 from counties and one state university college (MYH, 2016, p.17).

Not surprisingly, programmes offered by private providers also account for the largest share of students. In 2015, they accounted for 64% of all HVE students in Sweden. The total number of students in 2015 was 29,700 (MYH, 2016, p.18).

A6.8.1.2 Capital (Infrastructure)

HVE programmes deliver educational and training offers; they do not contribute to the creation of financial assets.

A6.8.1.3 Revenue (Additional Services / Lending facility)

The Swedish HVE programmes deliver both theoretical and practical educational and training. The legal base states that educational programmes that are awarded grants from the agency should be free of charge for the students¹¹⁵ (MYH, 2017f). However, the interviewee from MYH mentioned that private tuition fees currently do occur in a very small proportion of HVE programmes. An educational provider who is accredited but not granted state grants, could however charge tuition fees, if they are reasonable given the provider's costs (MYH, 2017f). There are today 16 MYH-accredited education programmes that do not receive grants from the MYH (Bergqvist, 2017) and therefore have the possibility to charge tuition fees. For comparison, in 2015 there were 1,845 on-going educational rounds (MYH, 2016, p.19). Thus, a very small share of the education at the HVE is currently financed through student fees.

A6.8.4 Investment context

A6.8.4.1 Government / Market failure leading to under-investment / public expenditure

It was suggested during an interview with the MYH that there is a need for additional investment in the HVE-sector. In their view, this is demonstrated by the fact that the agency can only fund around 400 of the some 1,500 programme proposals it receives per year. The agency advised that in addition to the granted programmes there are around 400 to 500 high quality applications that have to be turned down due to a lack of funding (Bergqvist, 2017).

All of these unfunded applications of high quality have strong business sector involvement, indicating unmet demand due to the agency's financial limitations. Unmet demand is particularly present in areas with the largest number of rejected high quality proposals. This is the case in areas of finance and administration; computing/IT; technology and manufacturing; care and nursing as well as infrastructure planning. These are also the areas where the agency receives the largest number of applications, and by implication labour market demand is largest.

Furthermore, there has also been a noticeable growth in demand from students in the last few years. In 2012 HVE programmes in Sweden received 66,995 applications from students; and this number grew to 90,800 applications in 2015. This meant that in 2015, HVE programmes on average had around two high quality applicants per available slot (MYH, 2016, p. 26).

¹¹⁵ There are two exceptions concerning "occasional contributions" (which is defined as an "insignificant amount" for occasional expenditures) and for educational tools (such as literature and other schooling material that the provider can sell to the student).

Therefore, as the high demand to host this sort of education is unmet there could be an opportunity for EFSI-funding to fill this gap, either through lending to support the agency budget directly or offering a lending platform to programme providers.

Addressing this unmet demand and enabling support for additional HVE programmes could lead to additional impact and benefits – evidence of such benefits across previous and ongoing HVE programmes is summarised below.

- HVE's "return on investment" in terms of the share of graduates in 2016 that had a job one year after their graduation is 91% (MYH, 2017e, p.12), and around half of the graduates that have a job after graduation are employed at a company where they did their HVE placements (MYH, 2016, p.48). Furthermore, a study by Lind and Westerberg (2015) compares qualified HVE-graduates to a matched sample of university graduates. Although the long-run employment rate is the same across the two groups, a higher share of HVE graduates finds employment one year after graduation compared to university graduates.
- The same article points to some additional effects of HVE in Sweden. For instance the authors identify that the employment rate for HVE-graduates increase from 60-70% before the education to 80-90% two years after graduation. Among the group of dropouts a similar increase in employment rate two years after start of the education is not observed. Moreover, the share of graduated students registered at the unemployment agency two years after graduation is noticeable lower than the same share of dropouts at the same point in time (around 12% for graduates and 25% for dropouts) (Lind and Westerberg, 2015)¹¹⁶.

Moreover, there seems to be a large income effect. 80% of students who were employed one year before starting their HVE and who successfully graduated increased their median income by 10,540 Euro (100,000 SEK) one year after graduation.¹¹⁷ This is due to a higher salary; they work during a larger part of the year as well as full time to a larger extent. Nevertheless, the authors do argue that it is important to mention that at least parts of this effect might have occurred regardless due to the students' age and career stage.

A6.8.5 Scale of investment / expenditure required

At project level – resources required for a typical project

Each year the Swedish state provides around 210 million Euro (2 billion SEK) to the MYH to distribute in state grants. The agency believes that it would indeed be possible to double the volume of the HVE-sector, with preserved quality (Bergqvist, 2017).¹¹⁸ That translates into funding need of an additional 210 million Euro per year which would be required in order to accept the high quality applications which they currently have to reject as well as to expand the HVE.

At portfolio level

The quantity of the unmet demand is around 400-500 programme proposals submitted each year which the agency believes are promising but does not support due to the agency's scarce funding. The figures provided by the agency imply that the average additional cost of funding these HVE programmes would be around 65 million Euro to 85 million Euro (6,000 Euro per student).¹¹⁹ In the annual statistics report, the

¹¹⁶ For completeness it should be mentioned that selection bias might play a role here.

¹¹⁷ Yearly income figures refer to gross income and have been recalculated to 2013 year's prices.

¹¹⁸ Email conversation, post-interview, 12th January 2017.

¹¹⁹ The MYH mentions in an interview that the average amount they grant per student in the HVE is around 6,300 Euro. The programmes that started in 2015 had an average of 27 places

agency also makes the judgement that the volume of the HVE in Sweden can increase based on the labour market's demand for vocational education as well as the large amount of applications (MYH, 2016, p.7).

By not funding these 400-500 high-quality programmes, there are on average between 10,800 to 13,500 "forsaken" students, which were not able to start their HVE-programme due to the lack of funding.¹²⁰¹²¹ In addition, demand from prospective students implies that in 2015 there was demand for around 90,000 additional individual places across all HVE programmes. This would translate into doubling the current size of the HVE programme, and a possible investment volume of 210 million Euro per year.

A6.8.6 Private / Social Sector Finance Provider

At the time being there is no investment in HVE programme other than that of the MYH through grants, and any contributions from the participating businesses. Students pay tuition fees only in exceptional cases.

Given the estimated benefits on average salaries and strong indication of unmet demand, there might however be space for using private investments or more broadly, lending products to support further HVE programmes.

A6.8.7 Income Generation

A6.8.7.1 Payees

Currently, government, education providers and individual students can be involved in financing additional HVE programmes or places. Central government is also indirectly involved by paying the grants which constitute part of the financing for an educational programme as well as paying the study aid financing (through the central agency for study aid, *Centrala studiestödsnämnden*, CSN) which students of the HVE are entitled to. Finally, the learning by employment is currently considered an important in kind payment in many of the HVE programmes – e.g. through the provision of internships, facilities, infrastructure and machines/equipment to be used in the education. Direct payments by the business sector into individual HVE programmes are rare.

According to interviews, there is interest in the agency to serve additional demand. One way this can be done, is by securing direct lending from EFSI. The cost of lending could be served by the agency through a small reduction in programmes previously supported. An alternative setup would mandate a revamp of the current system, and introduce a lending platform which would serve aggregate demand from education providers who cannot be served through government grants directly. Such a lending platform would imply that education providers would recover cost of capital through tuition fees, making the students another category of payees. One of the private providers of HVE mentioned that the largest motivation for the business sector's engagement is the possibility to employ qualified personnel (Yngvesson, 2017) –

per programme (MYH, 2016, p.24). This gives an average cost per programme of 170,100 Euro per year, which means that for the 400-500 vetted programmes which have not been funded, there is an average additional funding need between 68 million Euro to 85 million Euro.

¹²⁰ With on average 27 students per programme, the number of "forsaken" students is between 10,800 and 13,500. Important to note that the 27 students per programme is an average number where the number of educational spots varies from 19 to 34 spots, depending on the programme (MYH, 2016, p. 24).

¹²¹ Nation-wide study-aid in Sweden is managed by the national board for student aid (Centrala Studiestödsnämnden, CSN). So there might be further resources necessary if the overall number of HVE students is increased through further HVE programmes, and this does not result in a decrease of student numbers for other type of higher education. In 2017, the overall annual study aid offered by the agency for full time students amounted to 50,080 SEK (around 5,300 EUR), out of which 14,240 SEK (around 1,500 EUR) are provided as grant, and the remainder as repayable loan.

implying possibilities to generate direct monetary income through payments from the business sector directly.

A6.8.7.2 Income collection

Currently, as the only programmes accredited are funded through government grants, there is no income generated through the direct support of HVE programmes.

From a stakeholder interview it appears that the only income stream for private education providers who are currently supported by the agency, are the state grants provided by the agency (Yngvesson, 2017)¹²². Education providers then attempt to generate profits by optimising costs of providing the agreed HVE programme, and sell related services to municipalities. At the same time, the stakeholder is developing educational forms that are currently outside the HVE but where demand is seen from the labour market. In these educational programmes, student tuition fees will be charged (Yngvesson, 2017) and this is an income source.

If EFSI were to be involved, the government would be able to recover costs in the long term by additional income tax as well as foregone unemployment benefits from the graduates. Alternatively, programmes supported in addition to the current programmes could attempt to generate income through tuition fees or payments from the business sector.

A6.8.7.3 Time period

The length of an educational programme at the HVE varies between 0.5 to 3.5 years (MYH, 2016, p.30). The educational providers apply each year and if their application is approved, they are accredited for twice the duration of the programme.

Time periods for repayments depend on the nature of income generated. If EFSI lends directly to the agency, it might be preferable to define a long term to align with the period during which government benefits are expected to incur – i.e. starting from after the date at which the first cohort of students complete the programme. If instead a platform would be set up that would offer lending to private education providers which are accredited by the agency directly, the term length would be determined by the type and time of income generation by each individual provider. For instance, if student tuition fees are the main type of income for HVE providers, the repayment of loans into the platform would occur at similar time as above. If companies could be persuaded to make upfront payments for participating in individual programmes, a shorter term length might be possible.

With regards to the returns to the business sector or the society as a whole, returns materialise on average shortly after graduation. Research shows that on average, 91% of graduates from the HVE-programmes have a job one year after graduation (MYH, 2017e, p.12). This means that there are around 9% of students for which, on average, HVE does not generate short term benefits but might do so in the longer term. For instance, the continuous increase in the employment rate among graduates of a qualified HVE up to two years after graduation (Lind and Westerberg, 2015), suggests there are some positive long-term effects of HVE besides the most immediate short term effects.

A6.8.8 Service Provider

The provider of the additional finance would either be EIB/EIF in partnership with private investors directly or a platform sponsor who is able to administer a lending platform – it is unlikely that the agency itself can serve as lender. Just like now, the agency will pay out the allocated EFSI-funds to the educational providers. As the funds are now larger than before, a larger number of educational providers will be funded.

¹²² Email conversation on 22nd February, 2017.

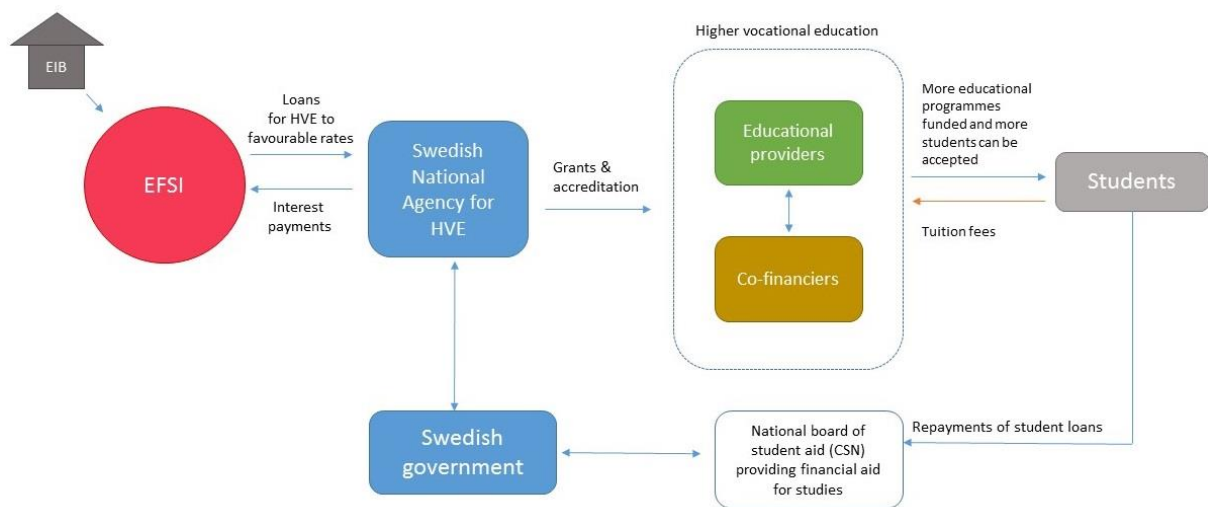
A6.8.9 Project Delivery Framework

As of early 2017, as per the interviews conducted and sources reviewed, there is potential to support additional HVE programmes and/or places in order to meet demand in Sweden.

There are two delivery frameworks which could help meet currently unmet demand and make use of EFSI support.

In a first setup, EFSI together with a private co-investor would provide direct lending to the agency, say to fund and accredit the discussed 400 additional programmes over 2 years – amounting to around 130 million Euro to 170 million Euro.¹²³ This delivery framework is presented below in Figure 20.

Figure 20. Delivery framework I – The agency as a borrower

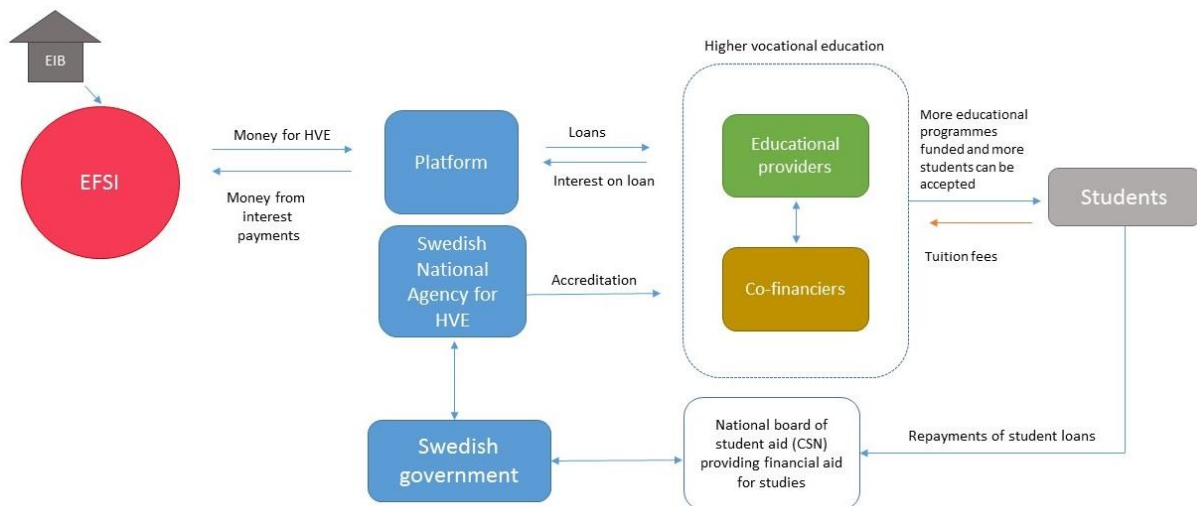


A second delivery framework would involve the setup of an investment platform for HVE, which would offer attractive loans exclusively to programmes which have been vetted by the agency but could not be funded through government grants. The MYH will still accredit those programmes. This delivery framework is presented in Figure 21 below.

This would necessitate a platform sponsor, unlikely to be the national agency itself.

¹²³ Based on estimates provided above and a 2 year budget, this would result in additional finance needs between 2*65 million Euro and 2*85 million Euro.

Figure 21. Delivery framework II – Using a dedicated lending platform



A6.8.9.1 Project manager

Although no actual organisation has been identified for managing the project, one option would be the MYH itself. On the one hand they have experience with allocating funds to the different educational programmes and on the other hand they are also most likely to remain the ones in charge of the accreditations, which are very important for the sector. However, if the ministry of education were to change the agency's mandate, such a task would be feasible, given that it entails similar responsibilities as the ones the agency has now (Bergqvist, 2017).¹²⁴

Nevertheless, MYH is an organisation that has no experience serving as a financial intermediary, meaning that they would not be a suitable platform sponsor for option II presented above.

A6.8.10 Financing Model

Education providers can generate fee income from programmes that are not being supported by the MYH. This may include programmes accredited by the MYH but not supported, or programmes not accredited by the MYH.

The first option keeps the lending/borrower relationship between the EFSI and any private sponsors on the one hand, and the **agency** on the other hand. The service provided from the agency would still be a grant to the providers; however the government would incur future income in terms of additional income tax and/or foregone unemployment benefits. The agency gets a loan and would distribute this as grants to the educational providers. The loan plus favourable interest is repaid to EFSI using government funds.

The second option involves the use of EFSI support in the HVE-sector in Sweden as a loan to **educational providers**, where a platform sponsor receives EFSI-funds, matches them with co-investment from private investors, and lends to the educational providers at favourable conditions. The business sector that participates in HVE programmes could decide to provide payments directly into the platform, or support individual programmes only via in-kind contributions as before.

Lending from the platform would be restricted to programmes accredited by the agency and not supported already, to increase likelihood of returns at individual student and company level. As for option I, this would allow scaling up HVE activities in terms of number of programmes and or number of students supported.

¹²⁴ Interview on 15th February, 2017.

The core issue in realising either of these options is to identify attractive revenue streams. Various possibilities exist, broadly grouped below under fee based models and reversed funds.

Fee-based funding models

In principle, it would be possible – unless more general political concerns exist – to extend EFSI support to programmes not accredited by the agency, as the principle argumentations seem to be the same. In this case, 225 million Euro for upfront funding of the programme extension would be needed per batch. Repayment would then have to come through a loan repayment scheme, which either operates as mortgage-loan or as income-contingent loans or as graduate contribution.¹²⁵

Involving the graduates in the financing of the programme appears justified, because graduation from HVE has considerable individual returns. The graduate gains from a higher income, which seems to grow considerably, and from a lower unemployment risk (as mentioned, the employment rate is around 80-90% after the education compared to 60-70% before the education (Lind and Westerberg, 2015)). Since this higher income results in higher tax payments, higher social insurance contributions and lower social welfare payments, the state benefits substantially from this investment (unless the labour market is saturated and not requesting additional HVE graduates).

The individual (re)payment depends on the costs of the particular programme and its duration; programmes last mainly between 1 and 3 years (see above). Based on a 3-year programme, total costs add up to 18,900 Euro. Monthly repayment of a loan depends upon repayment period and interest rate. At the end of the HVE-programme total debt is at about 20,850 Euro (interest rate 5%, and disbursement at the beginning of each study year). The (re) payment conditions could depend on the particular mode employed:

- **Mortgage loan** with an established repayment period of 5 to 10 years. In the former case, the monthly instalment is 395 Euro, in the latter case it is approximately 220 Euro. It is obvious, that the burden on income is the higher the lower the income is, and may be up to almost 50%, in case income figures of 10,450 Euro p.a. apply.
- **Income-contingent loan** with an established repayment share of 5% or 10% per year. In this case, a monthly instalment, which is equal to 10% of income, would be at 88 Euro, in case the start income of HVE graduates remains at 10,540 Euro. This instalment would hardly cover the monthly interest payment, and thus result in a repayment that is insufficient to repay the loan within a lifetime. If income increases to 2,200 Euro, which is actually the case four year after graduation (see above) the repayment would last about 10 years, if 10% of income are to be repaid and 23.4 years if 5%. These figures highlight that those with low(er) income face the risk of very long repayment period, i.e. until the cut-off threshold.
- **Graduate contribution:** a graduate contribution is an income-related payment over a certain period of time, rather than a repayment of a loan. Therefore, the

¹²⁵ A graduate contribution differs in some aspects from an income-contingent loan, even though some similarities exist. The general approach in both cases is that the (re-) payment is based upon individual income. The former student has to pay a certain share of his/her monthly income. As for an income-contingent loans the repayment lasts until the loan, incl. interest, has been repaid; thus, the repayment period depends on the individual income and is the shorter the higher the income. A graduate contribution is analytically comparable to a temporary graduate tax: the graduate pays a certain share of his/her income for a specified period of time, e.g. 5 or 7 years. In this case, a graduate with a higher income pays more than a person with a lower income, which means that the interest rate, implicitly, varies with income and is higher for those with higher incomes. One may consider a cut-off threshold in order to avoid too high interest rates.

terminology changes accordingly. The core assumption concerns the payment period, e.g. 5 or 10 years and the share of income. To ease the presentation and for comparability reasons, the share of income is established at 10% of income. In this case, a person with an income at the start level of HVE graduates of 10,540 Euro p.a. would contribute 1,054 Euro p.a. or 5,270 Euro over a five-year period and 10,540 Euro, in case the period is ten years, respectively. A person earning 26,340 Euro p.a. contributes 2,634 Euro annually or 26,340 Euro over the ten-year period. In order to recoup the full costs per student on average as well as a reasonable interest rate, the payment should probably be at least 10% of the income and last over minimum 10 years. The detailed calculation depends on further assumptions, e.g. the share of drop-outs and the deferment and/or default rate. It seems likely that the share should be slightly above 10% and/or the duration should be somewhat prolonged.

These examples highlight, that it may cause some difficulties to rely only on students or graduates, respectively, in particular when considering the attractive study aid provided by the agency itself.¹²⁶ This is particularly valid as the state benefits as do the employers.

Reversed funds¹²⁷: the loan or the financial provision from private financiers are provided to a fund, whose initial endowment is disbursed to cover the costs of the corresponding programmes, in some relationship to the number of students (whereas the co-financing of the businesses is more an in-kind contribution, rather than a financial one). The previous paragraphs revealed the individual burden might be high, if only the graduates are to contribute to the scheme. Involving not only the HVE graduates in the funding scheme is also justified, because not only them but also other stakeholders benefit from participation, e.g. the employer and the government, the latter in the form of fiscal returns. Meanwhile the graduate gains from a higher income, which seems to grow considerably over time in relation to non-graduates, and from a lower unemployment risk (as mentioned, the employment rate is around 80-90 per cent after the education compared to 60-70% before the education (Lind and Westerberg, 2015)). Since this higher income results in higher tax payments, higher social insurance contributions and lower social welfare payments, the state benefits substantially from this investment (unless the labour market is saturated and not requesting additional HVE graduates). Eventually, the employment rate increases in line with the level of qualification. The latter is a benefit that arises only at macro level and drives the fiscal returns disproportionately.¹²⁸

As already discussed in the previous paragraphs, the trainee can contribute to the cost of the programme while participating in the programme through tuition fees or afterwards in form of different modes (see above). This does not change if another mode is considered. The major benefit of involving at least the state in addition to trainees or graduates, is that the burden for the students can be reduced, which

¹²⁶ Cf. <https://www.yrkeshogskolan.se/Higher-Vocational-Education-HVE/What-student-financial-aid-I-available/> , accessed 23rd March 2017.

¹²⁷ The concept of a "reversed fund" has been developed by Dohmen in Bank et al. (2015). It is drafted as alternative to normal "training funds", which have a number of restrictions and disadvantages. In particular, although they are a thought-off to redistribute money funds from non-training companies to training companies, in fact, the redistribution mechanism favours growing companies or companies with a high number of older employees who are about to retire and, thus, a high need for young and trained employees. In addition, companies commonly have a limited planning horizon, which is valid even for many large companies and economic frame conditions may turn either positively or negatively quite rapidly, which may have a strong impact on planning figures.

¹²⁸ Strikingly, it appears that this effect is neglected in most estimates on the public benefits of education. Based on some German estimates, it appears that this may raise the fiscal return from 8-10% to more than 20% (Dohmen/Henke 2011).

results in higher private returns to HVE, and thus – ceteris paribus – keeps demand higher.

It is not easy to estimate the fiscal returns as well as its impact on the fund, but some rough figures may provide an impression. Average income tax rate in Sweden is 32% (Skatteverket, 2017) and the employer pays an additional 32% as social insurance contribution. If the difference in average incomes between persons without HVE and with HVE is 8,000, for example during the first four years (see above¹²⁹), 64% of the income difference amounts to 5,070 Euro, and if only 10% are appropriate to the fund this is 507 Euro per graduate and year. This is roughly one fourth of the graduate payment and thus a relevant difference. As neither the finance minister nor the social insurance system would have generated this revenue without the privately (externally) financed HVE programmes, it seems fair to appropriate such a share – one might even discuss to increase the share that is appropriated to the fund. It should be noted that additional fiscal returns arise from reduced social welfare payments (because of lower unemployment rates of HVE graduates compared to the lower vocational qualification) and possibly also higher tax and social insurance revenues may arise if the share of HVE that actively participates in the labour market is higher than for the next lower level of qualification.

These estimates, though still somewhat rough and preliminary, highlight that individual and fiscal returns would result from this private investment in providing resources for the endowment fund, here proposed as “reversed fund”, which would not result if no one else provides additional resources. Depending on the detailed design of the fund it might be possible to repay the endowment to the investors and to create a sustainable fund at the same time. The only pre-requisite is that the revenues to the fund are higher than needed to pay the investors.

Furthermore, since only additional revenues are appropriate to the fund, this proposal can also not be considered debt, as the state will not have to contribute, if no additional revenues arise.

A6.8.11 Assumptions / Risks

For any of the above propositions to work there needs to be no institutional or legal barriers for the agency to receive loans. Furthermore, the legal and political framework would need to allow the setup of a platform in the case of option II sketched out above.

Revenue streams would have to be realistic and attractive for investors, payees (students and participating companies) would have to be willing to contribute fees.

Another assumption is that educational providers who are not funded through government grants currently are ready to lend and are able to pay any cost of capital/interest on it. There is a risk that they still see the grant as more attractive and choose not to pursue their programme even with the alternative loan, even if there is clear demand.

Another assumption is that there will be no crowding out in the delivery of these programmes. Given the high demand to host HVE-programmes, and given the very important role of the business sector in this type of education, there is not likely to be major discouragement from the business sector to co-fund the HVE-programmes.

Cross subsidies might occur if the previous model of grant funding is used in parallel with the loan scheme, or for programmes which are comparable in terms of sectoral focus and training offer. Such a scenario would imply that some educational providers

¹²⁹ The figures above mention that a HVE graduate earns 26,340 Euro four years after graduation and a person that dropped-out from HVE 10,540 Euro. A simple interpolation arrives at an average income of about 8,000 Euro between both groups (all in 2013 year's prices).

would receive the grant (i.e. funding “for free”) whereas others will be offered the loan (funding at a cost of favourable rates).

In option I above, where the Agency acts as a borrower and thus has to repay the ESFI-loans/interest, this problematic scenario would not occur.

A6.8.12 Aggregation Potential

A6.8.12.1 Likely spatial scale

The fieldwork conducted, and in particular the current setup with a national agency funding a variety of programmes, suggest that there is potential to aggregate demand and lending to further HVE offers at the national level under an investment platform (option II). Direct lending to the agency would result in no further aggregation.

A6.8.12.2 Describe possible platform sponsors

Interviews with managing authorities of Swedish structural funds indicate that there might be possibilities for the Swedish ESF Managing authority to take on the role as platform sponsor. The ESF managing authority is already involved in the development of education and training at the national level. Moreover, as the Swedish European Regional Development Fund is already administrating investment instruments, the ESF managing authority might be able to tap into this existing experience. (Olsson, 2017). Alternatively, the Swedish ERDF which currently administers financial instruments might also have the capacity to take on this role.¹³⁰

A6.8.13 Summary of the investment opportunity

Based on MYH’s belief that the HVE in Sweden could double its size, the total requirement for EFSI funds would amount to somewhere close to 210 million Euro per year. In order to fund the currently unfunded high-quality programmes, an estimated 65 million Euro to 85 million Euro is needed.

Some of the key challenges with this project are the following:

- One key challenge is related to that the model requires an income stream from student tuition fees, which will be used for repayment of the loans. As a very small share of the HVE today is financed through tuition fees, and as Sweden has a norm of “free” education, the willingness to pay for HVE education might be small. Nevertheless, if it is possible to effectively point to the positive effects of HVE education, for instance in terms of the high share of employment post-graduation, that could increase student’s willingness to pay. Efficient loan-solutions are also required, providing students with loans to finance their tuition.
- Another key challenge is related to the income of educational providers that run programmes accredited by the MYH. One of the main providers states that their only income source for the accredited HVE programmes is the state grant (Yngvesson, 2017)¹³¹. Thus any possible profits from the HVE-education provision must come from these grants.

¹³⁰ The ERDF managing authority currently runs a number of equity instruments, in cooperation with the EIB. The authority is currently not managing any loan or guarantee instruments.

¹³¹ Email conversation, 22nd February, 2017.

A6.9 Social Impact Bond (SIB) interventions in education & training (United Kingdom)

This project summarises the investment opportunities to expand the use of SIB interventions (see box below for definition of SIBs) in education & training in the UK.

Social Impact Bonds

Payment by Results (PbR) interventions are based on contracts to provide funding for outcome contracts, under which the service commissioner (usually government) pays service providers to deliver specified service outcomes that are considered to contribute to government policy objectives.

Social Impact Bonds (SIBs) are a subset of PbR interventions. In SIBs, socially motivated investors provide upfront financing to service providers, with their financial returns linked directly to the provider's success in delivering contracted social outcomes and the consequent payments from the commissioner. In the case of the SIB, there is an intermediary investor that provides funding to service providers against a contracted payment for successfully achieving specified outcomes. The investor takes a margin against the risk that the outcomes are not achieved, and provides the investment funds.

The upfront financing is essentially a bond. But bonds are used to cover loans with a fixed return (interest). In the case of SIBs the financing is conditional on performance, and social investors are subject to a variable return, making the investment more akin to an equity investment. IN return investors will seek some control over performance. Formal special purpose vehicles (SPVs), legally owned by providers and investors, are frequently used as the basis of delivery.

The distinction between SIBs and other forms of outcome contracting is often ambiguous, meaning that the share of outcome contracts signed by the government that would be considered as SIBs, is subject to some uncertainty and subjective valued judgements.

In the UK, the commissioner of these type of contracts is typically the central (and sometimes also local) Government. There are two main ways in which SIBs are currently delivered:

1. The commissioner takes central place in the whole contract, signing separate agreements with the service providers and the investors. Once outcomes are achieved, the commissioner makes the agreed payments for outcomes to service providers and investors.
2. The commissioners contract with a partnership of the service providers and investors. When outcomes of the intervention are achieved, the commissioners make corresponding payments to service providers, who then pay out investors based on their partnership agreement. As noted, the investors and service providers may decide to set up a special purpose vehicle for the purpose of their cooperation.

A6.9.1 Target Sector

Based on research in the UK, there is likely to be demand for the following SIB interventions in the area of education & training:

- Transition of students from difficult social backgrounds from secondary education to employment or further education (see box below for examples). So far, these interventions have tended to focus on students aged 16 to 18 who are either failing or marginalised, i.e. possibly at risk of becoming NEETs. There are also some SIBs¹³² that specifically target young care leavers¹³³ because of

¹³² See for example some interventions funded by the Bridges Social Impact Bond Fund - <http://www.bridgesventures.com/wp-content/uploads/2015/04/SIB-One-Pager-UK-print1.pdf>

¹³³ The Care Leaver's association defines a care leaver as any adult who spent time in care as a child (i.e. under the age of 18). This care would have been approved by the state through a

the vulnerable nature of this group. The main goal of these interventions is to ensure that these students continue on in their education and/or find employment;

- Transition of students aged 16 to 18 with special educational needs and disabilities from secondary education to employment or further education. So far, these type of interventions have consisted of support services provided in or outside of schools, with the goal to improve educational attainment and employability of the target group. For example, there seems to be some potential to set up a SIB to support higher education institutions to take on students with special educational needs and disabilities (Big Society Capital, 2015);
- Provision of pre-primary education to children from low-income families who are at-risk of requiring additional educational support in primary education. The rationale is that participation in pre-primary education is likely to improve children's educational attainment and therefore reduce the amount of educational support required in primary education. In the long run, the improved educational attainment should also increase employability. This type of intervention has not been tried in the UK yet, but interviewees suggested the Department for Education (DfE) has a keen interest in funding a SIB aimed at pre-primary care. There is an example of a SIB from the US that funded pre-primary care for at-risk children (see box below).

For the first two types of interventions, the ultimate outcomes that the commissioner pays for are typically qualification achievement and/or progression into employment. There are typically also some intermediate outcomes that are paid for by the commissioner, such as improvement in behaviour, education participation, mental well-being or housing.

For the last type of intervention, the commissioner could pay for reduced use of additional support services in primary education by targeted children (Office of Childcare, 2014) – for example, the UK government could pay for children that no longer require the government's pupil premium¹³⁴ as a result of the intervention. While the ultimate rationale of the intervention also takes into account increased employability, this outcome takes too long to occur to attract investors.

Project example: UK SIBs to improve transition from school to employment or further education

£2.3 million was recently invested into 4 school-based programmes, each structured as a SIB, directed to improving the lives of vulnerable 14-18 year olds by supporting them into employment and/or further education (Big Society Capital, 2015):

3SC Capitalise SIB - Funds a programme in the Cardiff and Newport area designed to help address the root causes of poor educational attainment, and consequently low employment prospects, by focusing on improving pupil's literacy skills and low self-esteem. The Capitalise programme is performance managed by 3SC and is delivered by Dyslexia Action and Include, a subsidiary of Catch22.

Energise Innovation SIB - Supports a programme designed to build resilience and help people to progress in their lives, particularly in education and employment. This programme is managed by Social Finance and delivered by Adviza.

Triodos New Horizons SIB - Helps tackle youth unemployment. This programme is

court order or on a voluntary basis. It can range from as little as a few months to as long as ones whole childhood (18 years). Such care could be in foster care, residential care (mainly children's homes) or other arrangements outside the immediate or extended family.

¹³⁴ The pupil premium is additional funding for publicly funded schools in England to raise the attainment of disadvantaged pupils of all abilities and to close the gaps between them and their peers.

managed by Triodos New Horizons and delivered by Greater Merseyside Connexions Partnership (GMCP), a charity working with young people in Merseyside.

ThinkForward SIB - Funds a school-based support programme to improve the lives of vulnerable 14-17 year olds by getting them into employment and/or further education. This programme is managed by ThinkForward and delivered by Tomorrow's People.

Project example: SIBs to provide pre-primary education for children from low-income families in Utah

This SIB was launched in 2013 and focused on providing pre-primary education to children from low-income families. According to official figures for Utah, these children performed worse in primary education than their counterparts from wealthier families, which often resulted into the need to use publically funded special education and remedial services.

As a part of this intervention, children from low-income families were enrolled into the Utah High Quality Preschool Program, a high impact and targeted curriculum to increase school readiness and academic performance among 3- and 4- year-olds. This pre-primary education was envisaged to reduce the incidence of children using publically funded special education and remedial services. The reduced use of special education and remedial services was designed as the main outcome to be paid for in the intervention – the payments for this outcome were based on the money saved on provision of this support.

This intervention was launched by the Salt Lake County together with a non-profit organisation United Way of Salt Lake. It was funded by the J.B. & M.K. Pritzker Family Foundation and Goldman Sachs, with total funding available reaching \$7 million.

A6.9.2 Capital (Infrastructure)

Most SIBs are directed to improve the quality of education and training services, and not the creation of physical assets.

A6.9.3 Revenue (Additional Services / Lending facility)

SIB projects focus on the provision of services designed to deliver specific and well defined outcomes, paid for on delivery from government revenues. SIBs therefore create contingent liabilities for commissioners.

A6.9.4 Investment context

There are around 30 SIBs in the UK operating across all areas of social policy. Their value over the last five years is estimated at around £100 million (Bridges Ventures, 2016). The value of all government outcome contracts, including those that do not fall under the SIB definition,¹³⁵ over the past five years is around £15 billion (ibid). In other words, subject to the uncertainties of definition, SIBs currently account for less than 1% of PbR contracts.

While there are currently no SIBs directed to the provision of education in formal educational institutions¹³⁶, there are a number of SIBs where payments are focusing on additional support services for young people.

These SIBs do not focus exclusively on education, but educational achievement is usually one of the key SIB outcomes paid for by the commissioners. Interventions focus on improving the education and employment prospects of young vulnerable

¹³⁵ Broad definition of outcome contracts includes all contracts where some or all of the provider's fee will be contingent on how successful they are in delivering the specified societal outcomes.

¹³⁶ The lack of SIBs aimed directly at educational provision relates to legal restrictions of school activities, which prohibit schools from participating in profit generating activities and from commercial borrowing.

people, such as NEETs, youth at risk of becoming NEET, and young people with special educational needs or disabilities.

According to the Social Impact Bond Database¹³⁷ there are 14 social impact bond schemes in the UK, which provide funding for interventions aimed at workforce development, often targeting educational outcomes. In total, the social impact bonds have so far raised £12.8 million worth of capital and affected approximately 24,000 people.

A6.9.4.1 Government / Market failure leading to under-provision of essential public services

SIB interventions that could be funded under an investment platform are linked to the following investment needs:

- The government spends approximately £5 billion per annum on education provision for people with SEN, but there remains a substantial gap in attainment for those pupils with special needs and those without, suggesting their needs are not being adequately met by existing provision (Big Society Capital 2015);
- The government prioritised funding support for learners with very low skill levels or a certain disadvantage in the Skills for Sustainable Growth strategy (BIS 2010), but the proportion of NEETs in total population aged 16 to 24 was still above 12% in 2015;¹³⁸
- Current demand for child care cannot be met in a number of localities in the UK.¹³⁹ In a recent survey of 131 local authorities, 53% reported having insufficient childcare places. For example in London, an estimated 22,000 two year olds cannot access pre-school education (NDNA 2015). Research suggests that the lack of access to childcare is particularly severe in poorer parts of the UK, where parents often can't afford childcare beyond the statutory entitlement of 15 free hours a week guaranteed by the government.

The results of stakeholder interviews and supporting literature (European Parliament, 2014¹⁴⁰; Bridges Ventures 2016) suggest that addressing these shortfalls through SIBs could have the following advantages:

- Substantial government savings and improved delivery of services (see box below for detail on public savings). This is because SIBs focus specifically on achieving outcomes rather than the means to achieve them, which allows for more innovative solutions to targeted problems. SIBs stimulate providers responsible for funded interventions to adopt the most efficient solution to achieve required outcomes, rather than prescribing the type of solution necessary to be adopted;
- Investor activity to monitor project delivery. Qualitative research indicates that investors often closely cooperate with service providers to ensure successful project delivery (and therefore investment return). The investor involvement in monitoring is thought to add additional rigour and focus to intervention delivery, improving its efficiency. Investors seeking contractual rights to influence the service delivery will generally request the establishment of an SPV.

In general, interviewees felt that there was good potential for designing SIBs in the area of education and training because:

¹³⁷ <http://www.socialfinance.org.uk/database/>

¹³⁸ <http://www.ons.gov.uk/employmentandlabourmarket/peoplenotinwork/unemployment/bulletins/youngpeoplenotineducationemploymentortrainingneet/2015-08-20>

¹³⁹ Children and Young People Now 19 (August 2014)

¹⁴⁰ <http://www.europarl.europa.eu/EPRS/538223-Social-impact-bonds-FINAL.pdf>

- Education & training interventions typically focus on a closed group of beneficiaries (e.g.. students aged 16 to 18 in vocational education and training) whose outcomes can be easily defined and tracked over a defined period of time;
- There are strong measures of educational attainment, such as achievement of certain qualifications, that can be used as intervention outcomes; and
- There is some evidence of economic and social benefits that achieved outcomes bring to target group and wider society (see 0), which provide indication of how much can the commissioner pay per a given outcome.

Public savings associated with outcomes of SIB interventions aimed at transition from secondary education to employment of further education

According to available UK research (Coles et al, 2010), successful progression of vulnerable young people from secondary education into employment or further education is associated with substantial societal savings. Over a lifetime, the average societal savings resulting from preventing a young person from becoming NEET are estimated at about £118,300. This includes savings associated with reduced payment of public benefits, increased taxes, reduced rates of early motherhood and reduced crime rates.

Focusing solely on achievement of vocational and university qualifications, this has also been linked to substantial economic benefits in available research:

- achieving undergraduate degree leads to earnings premium of about 27.4% compared to achieving secondary education. Even higher premiums are associate with achieving Master and Doctorate Degrees (Department for Business, Innovation and Skills, 2011);
- achieving low to intermediate level vocational qualification can lead to an increase in earnings of up to 12%. It also increases the probability of being in employment by up to five percentage points (Department for Business, Innovation and Skills, 2013).

The improved earning and employment prospects are in turn likely to lead to public savings due to lower unemployment benefit payments and higher tax revenues.

Public savings associated with outcomes of SIB interventions aimed at pre-primary education for at-risk children¹⁴¹

The evaluation of a pre-primary education SIB in Utah highlighted that this type of intervention can lead to substantial public savings. According to preliminary estimates by Goldman and Sachs, the SIB has so far resulted in total savings of about US\$280,000 resulting from a lower number of supported children requiring additional education support in primary education. The public saving per child was estimated at US\$2,600, based on the costs Utah State pays for remedial education of children.

It must be stressed that these figures are not transferable to the UK context, given the differences between UK and Utah educational systems. The magnitude of public savings has also been disputed in press due to some overtly optimistic assumptions made by Goldman and Sachs in their estimations. Nevertheless, there is clearly a potential to generate substantial public savings as a result of SIB interventions in pre-primary education.

A6.9.5 Scale of funding / expenditure required

A6.9.5.1 At project level – resources required for a typical project

Individual SIBs linked to the area of education & training seem to be relatively small-scale, with their total value ranging from less than £1 million to £5 million. The

¹⁴¹ Based on <https://www.centreforpublicimpact.org/case-study/social-impact-bonds-early-childhood-education-utah/>

average investment requirement per SIB is estimated to be about £1 million – this is the amount required to cover working capital¹⁴² needs until income from successfully achieved outcomes can be used to cover the costs of the intervention.

A6.9.5.2 At portfolio level

The potential size of the intervention opportunity is difficult to assess, given the dynamic nature of the SIB market. Based on rough estimates made by interviewees, the demand for working capital to deliver SIB interventions in education & training could range from £20m up to a £120 million in the next 5-10 years. Interventions for working capital are assumed to be about a fifth of the total SIB value, so the total value of the SIB market in education & training could be between a £100 and £600 million.¹⁴³

Commissioner¹⁴⁴ demand a key factor constraining SIB growth

The interviews highlighted that the growth of SIBs for education and training is constrained by the number of government commissioners who are willing to enter into a SIB. In the UK, the judgement of interviewees was that interest is constrained by:

- up until recently, the lack of activity of the UK Department for Education in this area. Existing SIBs in the policy area are typically launched by other departments, such as the Department for Work and Pensions. However, the DfE is currently reported to be considering the commissioning of SIBs in the area of pre-primary education;
- lack of cooperation among commissioners that could potentially benefit from a SIB. In cases where SIBs would benefit multiple public bodies, there are often problems with willingness of these actors to collaborate in commissioning a SIB;
- the progressive de-centralisation of UK educational policy and devolution of responsibility for education & training to local authorities and schools. These local actors are typically reluctant to engage in commissioning of SIBs. This is because:
 - there is less scope to reach sufficient scale of investment to justify a SIB at local level;
 - local authorities have little experience and expertise in commissioning SIBs – it is a complex task to understand the possible risks and benefits of SIB interventions, and to design and implement appropriate schemes; and
 - local authority budget reductions have reduced their ability to experiment with new, and potentially more risky, commissioning approaches.

Current programme support for commissioning SIBs

Interviewees felt that to scale up the size of SIBs interventions, the central government will need to provide substantial support for commissioners to identify and implement SIB opportunities. There have already been several Cabinet Office programmes that aim to support commissioners in using SIBs, including:

- The Life Chances Fund¹⁴⁵, an £80 million fund to support development of payment-by-results contracts for local projects funded by socially minded

¹⁴² Working capital is the funding needed to undertake day-to-day operations.

¹⁴³ The working capital is typically required only in the beginning of the SIB operation. Once outcome payments start being made, these can be used to cover the working capital needs. Hence the lower value of investment need compared to total SIB value.

¹⁴⁴ In the UK, SIBs are mostly commissioned by either local or central government.

¹⁴⁵ Launched by UK government in 2016:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/551993/2016_09_life_chances_fund_guidance.pdf

investors (i.e. SIBs). Over the next nine years, the fund aims to provide around 20% of the total outcome payments for local SIB interventions, with the rest being provided by local commissioners (typically local authorities). This means that the programme intends to generate around £400 million worth of outcome contracts. It is expected that the fund will contribute to outcome payments for interventions aimed at early years and youth engagement, among others;

- The Commissioning Better Outcomes and the Social Outcomes Fund which has made £60 million available for design and funding of SIB interventions. The fund was launched in 2013 jointly by Big Lottery Fund and the Cabinet Office. It aims to support commissioners (both central and local) of SIBs by:
 - Providing between £10,000 and £150,000 funding to develop the SIB.
 - Offering to pay for up to 20% of SIB outcomes; and
- The Cabinet Office, in collaboration with the Blavatnik School of Government founded the Government Outcomes Lab. This institution aims to provide practical support to commissioners with outcome-based contracts and conduct research on outcome-based government contracting.

The interviewees felt that there is still substantial scope to support commissioners by providing additional:

- Top-up payments for outcomes to match the commissioner's payments;
- Technical support in development and design of SIB interventions;
- Raising awareness among commissioners of how they can use SIBs and associated advantages.

It was also suggested there was some scope for setting up a new central government fund to commission SIBs that deliver outcomes spanning the interests of multiple government departments (such as youth engagement). A coordinated cross-departmental approach could lead to a fuller appreciation of all SIB impacts across different government departments and commissioning of additional SIB contracts. On their own, individual government departments are less likely to commission such SIBs because only a part of their outcomes fall within their remits.

Finally, the research has indicated that SIB commissioning could be supported by more systematic gathering and sharing of experience with SIB interventions and their designs. Notably, it would be useful to develop 'template' designs for certain types of SIB interventions, which could be easily tailored by commissioners to local circumstances. This could significantly reduce the costs of SIB development and thus spread its use. Currently, most interventions are bespoke, adding to costs.

An example of a useful tool for commissioners is a list of suggested outcome payments for a specific SIB type. There have already been some attempts by the government to recommend the amount of money to be paid per outcome in interventions aimed at re-engaging young people with Education, Training and Employment. More specifically, the government Department for Work and Pension (DWP) developed a 'rate card' which indicated the maximum amount to be paid for such outcomes as qualification achievement or entry into employment.¹⁴⁶

A6.9.6 Private / Social Sector Finance Provider

A6.9.6.1 Current involvement of national finance providers

SIB interventions are currently financed mainly by social impact investors (such as Big Society Capital, Bridges Ventures, Big Issues Invest or Triodos), community interest companies and foundations. The Big Lottery Fund keeps an up-to-date directory of SIB

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https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/212328/hmg_g8_factsheet.pdf

investors, last updated in January 2017¹⁴⁷. Based on this directory, there are currently about 30 SIB investors.

These are investors who place a lot of emphasis on the social objectives of their intervention and therefore are willing to accept a modest return coupled with high intervention risk.

The potential to involve other types of investors was perceived as relatively low:

- The intervention is too risky compared to its return for for-profit investors, such as private banks. There was only one rare exception mentioned where a private bank invested in a SIB as a part of its corporate responsibility strategy. In addition, the government does not favour involvement of for-profit investors in SIBs, as it creates the impression that the government is funding private profits rather than social goals; and
- While high net worth individuals could be willing to invest in SIBs, it is probably a too technical and complex product for them. They are likely to favour simpler ways of social investment.

Based on the interviews, the SIB investors meet the current demand for working capital necessary to deliver SIBs. There is little demand for additional funding for SIBs from the EU, at least until institutional changes enable a significant expansion in the number and size of SIBs. The changes that could stimulate SIB growth are the following:

- Increasing the number of SIBs commissioned by local and central government for example by:
 - Successful roll-out of the new UK government funds (Life Chances Fund, Social Outcomes Fund)
 - Further evidence of the fiscal benefit of interventions aimed at preventing the subsequent social problems and associated costs;
 - Finding stakeholders willing to co-fund outcome payments alongside the central and local government;
 - Conducting and disseminating evaluation research on the performance of SIBs to identify the most efficient interventions and clearly measure their benefits to the commissioners promoting innovation and replication;
- The SIB growth could also be stimulated by a more systematic approach to SIB investment, for example by setting up an investment platform for all education and training projects to provide funding for a range of SIB interventions instead of funding these on an individual basis (see box below), creating a portfolio approach and allowing social investors to spread their risks across a number of interventions. This is subject to the ability to undertake formal and credible risk assessment across a diversity of interventions. Transaction costs could potentially be reduced.

Potential to set up an investment platform to invest into SIB interventions

The qualitative research found that investors tend to fund individual SIB opportunities; there is no aggregate 'social impact fund' to provide working capital for a range of SIB interventions. There could be important advantages from such a fund of funds. It could:

- spread the risk of interventions across different SIB opportunities, thus potentially attracting additional funders;
- reduce the transactions costs for investors, such as scheme design, provider contracting and costs of due diligence; and

¹⁴⁷ Can be downloaded here: <https://www.biglotteryfund.org.uk/sioutcomesfunds>

- promote knowledge sharing and expertise in the design and operation of SIB interventions leading to greater efficiency
- consolidating senior experience of SIB applications in the education and training sector assisting with advice on individual scheme design – made available through government funded technical assistance (as with the Social Outcomes Fund).

However, aggregation of multiple SIBs under a single interventions fund (even if just limited to education and training) may be difficult because establishing SIBs typically requires knowledge of specific problems to be addressed including local circumstances affecting delivery; and of the track record of reliable service providers. An aggregate fund supporting interventions into SIBs would probably have to rely on co-investment partnerships with local funders, in order to tap into their local knowledge.

A6.9.6.2 Potential for EU support

It was suggested EU institutions could support the development of education & training SIBs by providing additional co-investment for SIB outcomes and design, sharing risk and encouraging new investors, stimulating additional commissioning of SIBs. The uncertainties associated with the possible EFSI involvement prevented any specific comment, although there was concern that EFSI would expect financial rates of return in excess of those generally provided by a blended social and financial return.

Use of ESF funds was raised as one possibility, to help fund delivery costs and increase investment returns and future investment levels. For example, ESF could be used to top-up commissioner's outcome payments from ESF funds and/or to provide grants for SIB design and contracting. There is currently no involvement of ESF funding in SIBs.

A6.9.7 Income Generation

The return to SIB funders is generated by the surplus between the costs of service delivery to achieve the defined outcomes and the committed value of payments for these outcomes. These payments are made by the commissioner, usually central or local government.

For SIB interventions aimed at transition from secondary education to employment or further education, the indicative size of payments per different type of outcome is summarised in Table 5. The information is based on the DWP suggestions for interventions aimed at re-engaging young people with Education, Training and Employment.

For SIB interventions aimed at pre-primary education for children from low income families:

- The main outcome to be paid for could be the reduced use of additional primary education support by targeted children. For example, children participating in the intervention may not require the pupil premium¹⁴⁸ support offered by the government as a result. In the academic year 2016/17, the pupil premium is set at £1,320 per pupil enrolled in year 6 or lower of the school education;
- Some outcome payments could also be made based on improved educational attainment of targeted children in primary education.

Most of the UK SIBs rely solely or predominantly on government outcome payments as a revenue source. No other important source of revenue was identified.

¹⁴⁸ The pupil premium is additional funding for publicly funded schools in England to raise the attainment of disadvantaged pupils of all abilities and to close the gaps between them and their peers.

Table 5. Indicative list of payments per outcome for education & training interventions

Nature of outcome	Maximum price of outcome per person
Improved attitude towards school	€800
Improved behaviour	€1500
Improved attendance	€1600
Entry level qualification	€1000
National Vocational Qualification (NVQ) level 1 or equivalent	€1300
NVQ level 2 or equivalent	€3800
NVQ level 3 or equivalent	€5900
Entry into employment	€4100
Sustained Employment	€2300

Source: DWP rate card¹⁴⁹, prices converted from £ to € based on <http://www.xe.com/> and rounded to nearest hundred

A6.9.7.1 Payees

The commissioners pay for all the SIB outcomes. Research has indicated that commissioning is currently dominated by central and local government. Contracted SIBs therefore represent a contingent liability for government until such time as the contract is discharged. It is unlikely that the government would lose the central role in commissioning of SIBs. Non-governmental organisations typically lack the necessary skill, knowledge, creditworthiness, and resources to commission SIBs.

The SIB outcomes could potentially be funded by large international charities focusing on education & training, although this is rare at the moment. It was mentioned that some charities may consider partnership with for-profit companies, who may wish to provide outcome funding as a part of their corporate responsibility strategy.

A6.9.7.2 Income collection

Providers receive payments (including potentially interim payments) from commissioners, subject to contract. Returns to funders are distributed by providers. These transactions may be exercised through an SPV.

The rate of return on SIB interventions varies substantially across interventions. There have been SIBs which performed poorly and led to losses, but there were also SIBs mentioned by interviewees with rates of return on investment of more than 20%.

Average rate of return across UK SIBs was estimated to be between 3 to 10% by the interviewees.

A6.9.7.3 Time period

Up to five years for a typical SIB

A6.9.8 Service Provider

Social sector organisations such as charities and social enterprises

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https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/212328/hmg_g8_factsheet.pdf

A6.9.9 Project Delivery Framework

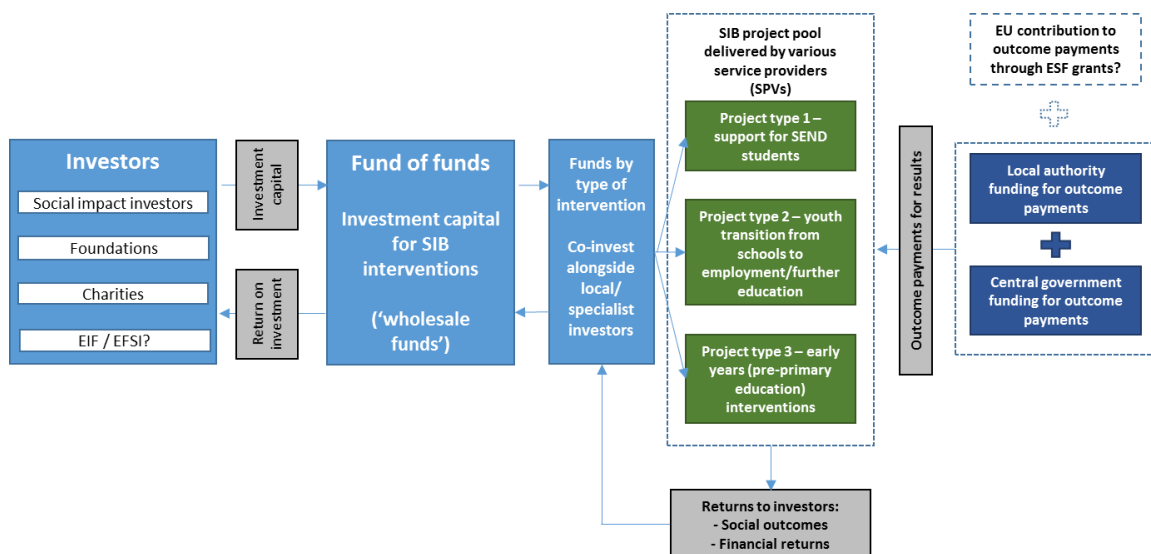
A6.9.9.1 Use of an investment platform and funding model

Interviewees indicated some interest in setting up an investment platform that would receive 'wholesale' funds' from social investors for subsequent allocation to a range of individual SIB interventions (possibly through a number of individual sub-funds targeting specific types of education and training intervention). However, demand is largely constrained by the level of commissioning of payment by results interventions, which in turn depends on overall government expenditure constraints, and the relative weight given by government to preventative interventions.

This platform would likely be a fund-of-funds at national level reflecting the diversity of investment need and the interests of social investors. The platform would co-invest alongside local investors into relevant SIB opportunities.

This delivery framework is outlined in Figure 22 below.

Figure 22. Delivery framework



A6.9.9.2 Project manager

There is currently no organisation identified as suitable for managing this investment platform. To some extent it would depend on whether it could be managed by an investor (such as Big Society Capital) or an intermediary such as Social Finance.

The platform would be a separate legal entity and build from UK experiences of other fund-of-funds investing in the social sector (see for example the Growth Fund¹⁵⁰).

A6.9.10 Financing Model

Two financing models are prevalent, PbR and SIB. Payment by Results (PbR) interventions are based on contracts to provide funding for outcome contracts, under which the service commissioner (usually government) pays service providers to deliver specified service outcomes that are considered to contribute to government policy objectives.

Social Impact Bonds (SIBs) are a subset of PbR interventions. In SIBs, socially motivated investors provide upfront financing to service providers, with their financial returns linked directly to the provider's success in delivering contracted social outcomes and the consequent payments from the commissioner. In the case of the

¹⁵⁰ <https://access-socialinvestment.org.uk/growth-fund/>

SIB, there is an intermediary investor that provides funding to service providers against a contracted payment for successfully achieving specified outcomes. The investor takes a margin against the risk that the outcomes are not achieved, and provides the investment funds.

A6.9.11 Assumptions / Risks

The main challenges in setting up the platform are:

- Stimulating sufficient demand for SIB interventions from commissioners. Currently the SIB investment supply is higher than the investment demand from SIBs commissioned by the government;
- Demonstrating savings associated with SIBs compared to other type of interventions funded by the UK government. While there is some research summarising benefits of SIBs based on tentative assessment of early experiences (European Parliament, 2014¹⁵¹; Bridges Ventures 2016), there is a lack of robust quantitative evidence of SIB performance compared to other government interventions. More evidence needs to be gathered to demonstrate what types of SIB interventions are particularly effective.
- Aggregation of a diverse range of relatively small-scale projects into a single investment opportunity. Identifying suitable SIB interventions requires considerable experience with investing into services to be delivered and of local partners who could deliver them.

A6.9.12 Aggregation Potential

A6.9.12.1 Likely spatial scale

The platform is envisaged to operate at national level, but some interviewees mentioned it would be interesting to consider an international platform as well. The main advantages of an international platform would be the following:

- Larger potential to use EFSI. While in the UK the investment supply for SIBs is high, this may not be the case in other countries where social investment markets are less developed. In these countries, EFSI support could have more potential to unlock additional investment.
- Improved knowledge sharing. The interviewees suggested that sharing experiences from a broader range of SIBs could help establish which interventions work best under different local circumstances. Given the early stages of SIB development, it was felt that a lot could be learned from the delivery of SIBs in other EU countries.

A6.9.12.2 Possible platform sponsors

There was no clear candidate for a platform sponsor – the interviewees considered the platform as an interesting idea, but made no specific recommendations of organisations that could set it up.

Most interviewees mentioned that the central government would be likely to play an important role in setting up the platform. This is because the size of the investment opportunity largely depends on the willingness of the government to commission new SIBs.

The main motivation of the central government to support SIBs is the potential public savings these interventions can generate. SIBs also reduce the risk of government paying for failed interventions.

¹⁵¹ <http://www.europarl.europa.eu/EPRS/538223-Social-impact-bonds-FINAL.pdf>

Based on the recently launched Life Chances Fund to support SIBs, central government is mainly interested in education & training SIBs targeting:¹⁵²

- Young people, such as NEET prevention, youth unemployment and youth justice
- Early years, such as early intervention, school preparedness and education

A6.9.13 Summary of the intervention opportunity

Based on qualitative research, the investment necessary to deliver SIB interventions in education & training could range from £20m up to a £120 million in the coming years. This volume of intervention could provide enough scope to set up a national platform aimed at funding education & training SIBs. At this level of commission the investment need is likely to be covered by national funders, with little need for additional EFSI investment in this area. The platform would need to be associated with an increase in commissioning.

The main benefit of a national intervention platform would be a reduction in risk and transaction costs for investors. It could also improve best-practice sharing across different SIB interventions.

Before such a platform can be set up it is important to:

- Stimulate enough demand for education & training SIBs from commissioners. EU could support this process by providing ESF grants to fund SIB outcomes and design;
- Determine the specific interests of potential platform sponsors;
- Establish the risk appraisal and risk management arrangements and responsibilities as part of the governance arrangements for the Platform;
- Improve understanding of which SIB models work well in the area of education & training.
- It is important to gather additional evidence on SIB benefits, develop templates of efficient SIB interventions and spread these among commissioners. Sharing experiences from SIBs in other EU-28 Member States could substantially help with creating this evidence base.

A6.9.14 Annex to the case study

A6.9.14.1 Review of economic and social returns from investment in education and training

In England, there is a wealth of literature that tries to quantify the value of post-secondary VET and higher education to individuals, employers and the society. These studies are often used by the government to establish who benefits from a given type of education and therefore who should pay for its costs. Since these studies often quantify personal and employer benefits resulting from VET and higher education, they have been used to support the government effort in leveraging additional financial contributions from individuals and employers to fund this education.

The Leitch Review (2005) provides a high level summary of the potential macroeconomic benefits of raising skill levels in the UK. The Leitch Review estimated the potential economic impact of growing skills at different levels. If the UK were to up-skill an additional 3.5 million adults by 2020 the economic impact could be:

- An increase in workforce productivity by 0.5% to 4.4% depending on the skill category of the workers to be up-skilled (i.e. low, intermediate or high skilled); and
- A net benefit to the economy of up to €160 billion depending on the skill category of the workers to be upskilled.

¹⁵²https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/551993/2016_09_life_chances_fund_guidance.pdf

A recent study by the Department for Business, Innovation and Skills (2011) showed that earnings¹⁵³ return associated with an undergraduate degree stands at approximately 27.4% overall compared to achieving only secondary education. The analysis indicates that there are substantial earnings returns to Master's degrees as well, with men and women posting an 8.9% and 10.3% premium respectively compared to possession of an undergraduate degree. The premium achieved by those in possession of Doctorate degrees is substantial and stands at approximately 16-17%.

Focusing on a broader measure of the rate of return on investment¹⁵⁴, this study shows that:

- The individual rate of return to an undergraduate degree for men was 15.6% compared to 14.8% for women; and
- The individual rates of return associated with Doctorate and Master's qualification stand at 8.7% and 14.9% for men respectively and 6.8% and 11.3% for women respectively.
- The associated rate of return achieved by the government resulting from the funding of undergraduate qualifications stands at 10.8% overall. This is achieved through tax collection and national insurance receipts.
- The government rate or return is much higher for Master's qualifications, reaching almost 32% for men and 22.5% for women. This is because of the shorter duration of Master's degree (12 months) and the limited funding through HEFCE for these qualifications.

A similar study by Greenaway et al (2003) compared salaries of graduates and non-graduates to reach the following conclusions:

- Completing a higher education degree leads to a premium of about £400,000 in future earnings; and
- An average private return rate to gaining a degree from higher education institutions is between 17% and 30%, with significantly higher returns reported for women than men.

Another recent study by the Department for Business, Innovation and Skills (2013) established that completing a low to intermediate level vocational qualification can improve subsequent earnings by up to 12% (compared to non-completers) . It also highlighted that people who complete such qualifications have up to 5% higher likelihood of being in employment after they finished their studies.

The positive returns to vocational qualifications are also confirmed in a recent report produced by a group of colleges (157 group 2015), which finds that completing vocational education is associated with the following benefits:

- Learners receive an average 11.2 per cent return on their investment in terms of higher future earnings
- Society receives an average 12.6 per cent return on its investment in terms of an expanded tax base and reduced social costs
- The taxpayer receives a 12.3 per cent return on its investment in terms of returns to the government.

There is also some evidence of positive impacts of capital expenditure¹⁵⁵ on upper/post-secondary VET (BIS 2012a). Notably, this research found that each £1

¹⁵³ The study used post-tax (Income, National Insurance and VAT) hourly earnings to estimate the earnings return. Earning return does not consider costs of achieving qualifications (as opposed to the rate of return on investment results presented below).

¹⁵⁴ The rate of return on investment is defined as the discount rate (or rate of interest) such that the present value of a future stream of benefits equals the present value of a future stream of costs.

million of capital expenditure is associated with between 62 and 86 learners per year in upper/post-secondary VET.

Yet another study focuses on the economic impacts of preventing people from becoming NEETs (Coles et al, 2010). From individual perspective, the total benefits of preventing a NEET are estimated at almost £263,000 over his or her lifetime. There are also significant savings for the society as a whole - each avoided NEET results in benefits equal to approximately £118,000. A more detailed breakdown of these benefits is presented in Table 6.

Table 6. The benefits of preventing NEET status for individuals and the society

Type of avoided outcome	Individual benefits	Societal benefits
Educational underachievement	£29,000	£100,600
Unemployment / inactivity	£227,900	
Early motherhood	£3,800	£14,100
Crime, poor health, substance abuse	£2,900	£500
Retirement (tax loss, additional benefits)	£0	£3,100
Total	£263,600	£118,300

Source: Coles et al, 2010 and ICF calculations

Finally, using large panel data of British companies between 1983 and 1996, Dearden et al (2006) found that 1 percentage point increase in training is associated with about a 0.6 percent increase in worker productivity and a 0.3 per cent increase in worker wages. Since workers' productivity increase more than their wage, this suggests there is a rationale for employers to provide funding for the training of their employees.

¹⁵⁵ This study analyses the total amount of capital expenditure received by covered further education college (in real terms) between 2002/03 and 2010/11, both from public and private sources. The sample of covered colleges undertook capital expenditure worth a total of £4 billion over this period, at 2012 prices. This equates to around 60 per cent of total capital expenditure by FE colleges over the period (a total of £6.8 billion).

A6.10 Provision of small-scale finance to social sector organisations focusing on education & training services (United Kingdom)

A6.10.1 Target Sector

This project describes the feasibility of setting up an investment platform to improve access of social sector organisations, such as social enterprises and charities, to small-scale, unsecured debt finance. Many social sector organisations providing education & training services are likely to demand this type of finance.

According to the interviewees, social sector organisations to be supported through small-scale unsecured finance are likely to focus on:

- Provision of pre-primary education. The pre-primary education in England is often delivered by private organisations, be they profit or not-for-profit. Capital investment is often needed for start-up or expansion of education provision. The main revenue streams for these projects are payments by local authorities (or other public actors) and parents.
- Selling services directly to schools, such as new educational technologies or services to support pupils with special educational needs or disabilities (SEND). To develop such services may require considerable capital investment. The main revenue source for these activities are direct school payments.
- Delivering out-of-school activities to engage young people – these activities typically focus on disengaged youth and aim to improve their educational attainment, increase employability and potentially reduce criminality. Capital investment is often required to acquire/develop assets, such as buildings, where out-of-school activities can be delivered. While out-of-school activities typically do not generate a revenue stream on their own (social sector organisations often fund these from their other activities that generate profit), the assets developed to deliver these activities can be used for profit-making activities (i.e. renting out property for other purposes).
- A range of vocational education interventions aimed at vulnerable students aged 17-21 to improve their employability and transition to the labour market. Depending on the type of vocational education provided, this can be very costly asset-wise. Main revenue sources are usually government/local authority payments.
- Adult education in such areas as literacy or numeracy, which is also likely to require some asset development. These interventions are often funded by the government or local authorities.

A6.10.2 Capital (Infrastructure)

Some projects will be investing in the development of tangible assets, such as pre-school buildings, but this is not the main focus of the projects overall.

A6.10.3 Revenue (Additional Services / Lending facility)

Most projects would be considered to be revenue projects, based on cash flows associated with the supply of services to targeted beneficiaries; and investment in intangible assets.

A6.10.4 Investment context

A6.10.4.1 Government / Market failure leading to under-investment / public expenditure

There is a well-documented gap in access of social sector organisations to small-scale debt finance – in a 2012 small business survey, almost a half of social enterprises (48%) indicated they have issues with obtaining finance (Cabinet Office, 2013). In a 2013 survey of social enterprises, around 40% of respondents indicated they lack or

have poor access to finance, regardless of whether this is needed to start up a new social enterprise or support the growth of an existing one (Social Enterprise UK, 2013). This reflects a broader gap in access to finance among small and medium enterprises, also well documented in UK literature (see for example BIS, 2012 or Close Brothers, 2016).

One of the main reasons for this gap is the lack of collateral and/or track record among small organisations applying for debt finance (BIS, 2012). In addition, interviewees highlighted that providing finance to social sector organisations is likely to be high risk activity with significant transaction costs. This is because social sector organisations typically request small sized loans to fund activities that are not/are only partially profit-based.

According to the interviewees, poor access to debt finance is likely to limit the number and size of social sector interventions described above. These interventions address important gaps in public funding of education & training (Big Society Capital 2015):

- Exam results show a significant level of underperformance of pupils from low income backgrounds in comparison to their peers, beginning even before a child even enters the mainstream education system. Recent GCSE data released for 2013/14 has shown an increase in the underperformance of pupils from low income backgrounds to 27.0%.
- Children and young people with low levels of educational attainment are at a much greater risk of becoming 'NEET' (Not in Education, Employment or Training). The government has prioritised funding support for learners with low skill levels or a certain disadvantage in the Skills for Sustainable Growth strategy (BIS 2010), but the proportion of NEETs in total population aged 16 to 24 was still above 12% in 2015.¹⁵⁶
- Although the governmental spend on provision for people with SEND is approximately £5 billion per annum, there remains a substantial gap in attainment for those pupils with special needs and those without, suggesting their needs are not being adequately met by existing provision (be it in mainstream or specialist education).
- Current demand for child care cannot be met in a number of localities in the UK.¹⁵⁷ In a recent survey of 131 local authorities, 53% reported having insufficient childcare places. For example in London, an estimated 22,000 two year olds cannot access pre-school education (NDNA 2015). This lack of childcare is further exacerbated by:
 - Current Government commitment to expand childcare provision. Currently the Government guarantees 15 hours a week of free childcare for all 3 to 4 year olds and 2 year olds from disadvantaged families (DG EAC 2015). The Government has promised to double this commitment to 30 hours a week of free childcare from September 2017.¹⁵⁸
 - Geographical disparities in childcare provision. According to qualitative research, the lack of access to childcare is particularly severe in poorer parts of the UK, where parents often can't afford childcare beyond their statutory entitlement of 15 free hours a week.

A pilot fund, called the Access Growth Fund¹⁵⁹, was set up in the UK to improve the access of social sector organisations to small-scale finance. This fund aims to provide a

¹⁵⁶<http://www.ons.gov.uk/employmentandlabourmarket/peoplenotinwork/unemployment/bulletins/youngpeoplenotineducationemploymentortrainingneet/2015-08-20>

¹⁵⁷ Children and Young People Now 19 (August 2014)

¹⁵⁸ <http://www.government-online.net/dfe-contract-notice-for-early-years-investment-fund-manager/>

¹⁵⁹ <https://access-socialinvestment.org.uk/growth-fund/>

total of £45 million to social sector organisations through financial products that blend small unsecured loans with grants.

The investment project described in this document is expected to build upon this pilot fund and expand it. However, there are also some other non-debt-based alternatives for social sector organisations to raise small-scale finance, such as community shares.

Community shares – an alternative way to raise small-scale finance¹⁶⁰

Community shares are somewhat akin to commercial equity investment, but impose important restrictions to ensure the social mission of involved organisations is not threatened by private interests of profit-seeking investors.

Community shares refer to non-transferable withdrawable share capital, which can only be issued by certain types of social sector organisations (co-operative societies and community benefit societies). Its unique characteristics include:

4. Community shares are non-transferrable between people. However, shareholders can withdraw their share capital, subject to terms and conditions that protect the society's financial security;
5. The value of shares is fixed and not subject to speculation.
6. Each shareholder has only one vote regardless of the size of his/hers investment. Maximum size of a share is currently £100,000.
7. Interest payments on community shares are capped, with maximum interest being set in a way to be no more than sufficient to attract investment.
8. The majority of social sector organisations that issue community shares have an asset lock. This prevents them from being sold and the proceeds of the sale being distributed among shareholders.

Thus community shares do not offer the prospect of capital gains and need to attract investors whose interest are aligned with the underlying purpose of the social sector organisation. Investment is based on the pursuit of a particular social mission rather than profit.

Since 2009, almost 120,000 people invested into community shares issued by about 350 social sector organisations, with the investment totalling over £100 million. Based on available case studies, the size of investment per enterprise can range from £50,000 to £5 million.

A6.10.5 Scale of investment / expenditure required

A6.10.5.1 At project level – resources required for a typical project

The average size of funding required per social sector organisation is likely to be small – the Access Growth Fund currently provides loans of up to £150,000 per project. This is because of the small size of a typical social sector organisation. For example, an average turnover of a UK social enterprise was £206,800 in 2012 (Cabinet Office, 2013).

A6.10.5.2 At portfolio level

There is potentially a large number of small-scale education & training projects to be aggregated at national level, which reflects the fragmented nature of the UK social sector market. The calculation below tentatively estimates the number of social sector organisations providing education & training services in need of finance:

¹⁶⁰ Based on <http://communityshares.org.uk/find-out-more/what-are-community-shares>

- Assume there are currently around 284,000 social enterprises (ICF, 2014);
- Assume that 16% of these enterprises focus on providing services relating to education & training (ICF, 2014). Multiply the total number of social enterprises by this proportion to estimate the total number of social enterprises providing education & training services (around 45,000);
- Assume that about 40% of enterprises have difficulty in obtaining finance (Social Enterprise UK, 2013). Multiply the total number of social enterprises providing education and training services by the proportion of enterprises with poor/no access to finance;
- This yields a total population of about 18,000 social enterprises focused on providing education & training services potentially demanding small scale loans.

Qualitative research suggests the demand for finance across all UK social sector organisations delivering education & training interventions could be large enough to accommodate an EFSI loan worth €20 million. This assumes that the loan would be matched by private investment at one-to-one ratio, i.e. that the total size of the investment opportunity would be around €40 million. If necessary, the size of the investment opportunity could be increased by pursuing education & training measures in the context of a wider social investment portfolio, including other frequent social sector interventions such as healthcare.

The demand for finance is difficult to assess separately for different types of education & training interventions, but it is unlikely that one type of intervention would generate investment demand large enough to warrant EFSI support. The only exception could be the provision of pre-primary education, given the current Government activities aimed at childcare expansion (see above). However, much of this investment need will be covered by the Early Years Investment Fund being set up by the Government (see box).

Overall, findings from interviews suggest the aggregation of different education & training interventions under a single investment opportunity is likely to be complicated by:

- The fragmented nature of the social sector in the UK, where most social sector organisations are small and operate at local basis. It can be quite costly to identify relevant interventions to invest into.
- Specialist knowledge required to assess the viability of investment opportunities, where different types of interventions are likely to require different types of expertise to be assessed.

Early Years Investment Fund

This fund is currently being set up by the Government in order to support its commitment to offer 30 hours of free childcare a week to parents of 3 to 4 year olds across the UK. A tender has already been published to find a private investment fund manager, and tender applications are now being reviewed.

The fund will provide small-scale loan finance to organisation providing childcare, both for and not-for-profit. It is expected that a range of different products will be provided to suit the needs of different organisations - these products are likely to vary in duration, size and security requirements.

The fund is expected to be worth around £30 million, with £10 million of government funding, £10 million from social impact investors and £10 million from a large commercial bank. The government will act as a first loss investor, i.e. it will be paid out only after all other investors had been paid out. The social impact investors are expected to provide more risky and long-term debt investment, while the bank is expected to provide shorter-term lower-risk loan finance. The return on investment for both the social impact investors and the bank is expected to be somewhere between 5 and 7%.

In addition, the government will provide a small scale grant support (£2 million) to support operation of the fund.

The life of the fund is expected to be between 13 to 20 years.

A.6.10.6 Private / Social Sector Finance Provider

The qualitative research suggests the investment platform would most likely attract investors who invest to achieve a certain kind of social mission. This includes social investors (such as Big Society Capital), charities and foundations with educational and/or community focus.¹⁶¹

These are investors who are either willing to lose money on investment to achieve a certain social goal, or at least acknowledge importance of the social mission and therefore require only modest rate on return on their investment. Provision of small-scale unsecured finance to charities and social enterprises is fundamentally not a profit-making activity; indeed it is likely to generate some investment losses.

It would be important to find social investors / grant providers that are willing to cover for first loss on the loans provided, likely to be somewhere between 10 to 30% of amount loaned according to interview findings. This is the first condition to attract investors who require positive rates on returns.

The investment platform would thus require a first layer of investment, matched by grant funding, to cover the expected first loss on loans. This would allow to attract further social investors with some, albeit modest, profit expectations. It is unlikely that investors expecting commercial rates of return on investment would be attracted (although it is theoretically possible – it would require sufficient amount of finance to cover loan losses and thus effectively subsidise profits of these investors). There may be some, although limited, scope to attract investment from high net worth individuals interested to invest in social causes.

A6.10.7 Income Generation

The investment platform would focus on providing small-scale, unsecured loans. This reflects the small size and lack of assets among social sector organisations, which prevents them from accessing debt finance on a commercial basis (i.e. from banks) in the first place.

Based on qualitative research, the interest rates on the unsecured loans would likely be somewhere between 10 to 15%. The loans would sometimes need to be blended with grant support to fund activities that do not generate profit but are crucial to achieve the social goals of funded interventions. In practice, the grant element could account for about a fifth of the total support provided.

The investment platform would focus on funding interventions delivered by social sector organisations, which limits the expectations about the returns on investment. The interviewees mentioned four main factors that limit the returns on investment:

- The small loan size, which leads to disproportionately large transaction costs associated with due diligence processes of lenders.
- The high risk nature of the projects, where there is likely to be a higher proportion of unrepaid loans than usual.
- Small profit margins of social sector organisations, due to their focus on their social mission rather than profit-making.
- Dependence on unstable revenue sources, such as government and/or local authority funding

¹⁶¹ See https://access-socialinvestment.org.uk/wp-content/uploads/2016/03/Building-the-pipeline-for-the-Growth-Fund_-_Access-Foundation_Final.pdf for more detail

Overall, the qualitative research suggested there would be at least some first loss on investment, most likely somewhere between 10 to 30% of the amount loaned.

The first loss would need to be covered by a group of committed social investors / grant providers in order to create safer investment opportunities with at least some positive returns. According to qualitative research, it is realistic to have a first loss cover which generates investment opportunities with positive returns of around 5 to 7%. Higher rates of return could deter committed social investors / grant providers from covering investment loss - they could feel they spend money to allow other investors to profit rather than to enable a desirable social intervention.

A6.10.7.1 Payees

The service providers are expected to repay the loans from the following income sources:

- Government (Central, Local) payments, for example for each pupil placed in pre-primary education. At least some of these payments would presumably reflect future government savings realised as a result of the services provided by the social sector organisations.
- Schools/colleges paying for services provided by social sector organisations
- Households, typically parents, paying fees for education (i.e. nurseries) or services provided by social sector organisations
- Cross subsidies between activities of social sector organisations – for example some charities deliver profit-making activities and use their profits to fund other activities related to their social mission
- Revenues from renting assets – some social enterprises/charities rent their assets (i.e. buildings) for commercial purposes to gain additional revenues

A6.10.7.2 Income collection

Regular cash-flows from payees as basis of loan and related interest repayment by borrowers to social investors.

A6.10.7.3 Time period

The loan length would likely to be less than five years.

A6.10.8 Service Provider

Social sector organisations such as charities and social enterprises

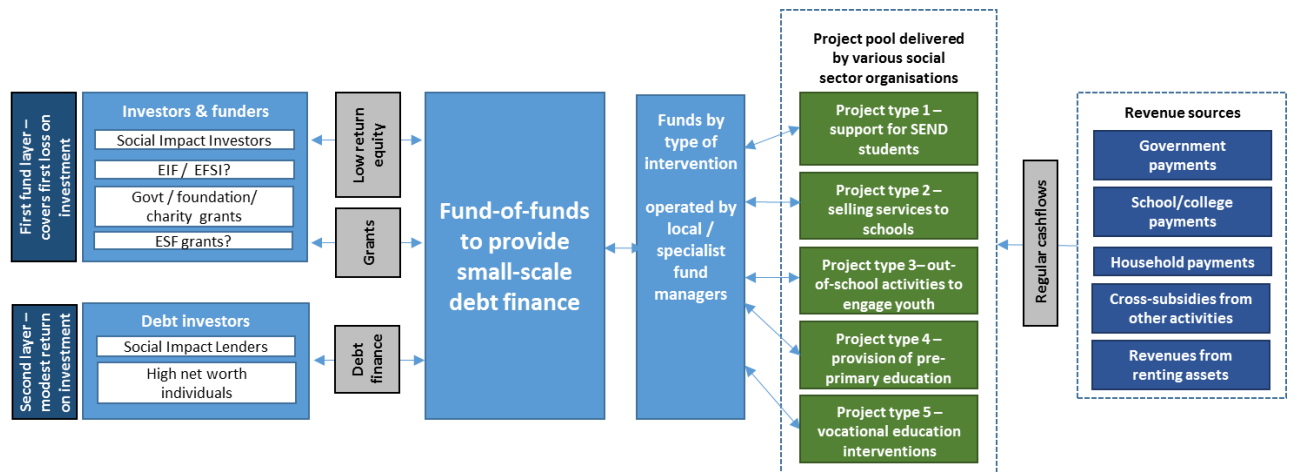
A6.10.9 Project Delivery Framework

A6.10.9.1 National level

The interviews indicated some interest in setting up an investment platform to provide small-scale debt finance to social sector organisations. To warrant EFSI support, this platform would most likely need to be set up at national level and invest into a broad range of education & training projects.

The platform would likely be a fund-of-funds, which would set up multiple smaller funds in partnership with local/specialist fund managers. These local/specialist funds would then provide small-scale debt finance to social sector organisations delivering education & training services. This delivery framework is outlined in Figure 23 below.

Figure 23. Delivery framework



A6.10.9.2 Project manager

The Access Foundation expressed an interest in managing the investment platform. Access Foundation currently manages the Access Growth Fund, which means that they would already have valuable experience with managing a similar type of platform.

A6.10.10 Financing Model

The financing model is a national fund-of-funds aggregating funding a range of investors and grant providers, in order to provide small scale debt finance to a broad range of education & training interventions. The fund would be expected to have two layers:

- First layer of the fund would consist of grant providers and impact investors who are willing to accept zero or very low return on their investment. This layer would cover the expected first loss on investment, creating safer and potentially more profitable investment opportunities for the second layer of investors. The first layer of the fund is necessary because providing small-scale debt finance to social sector organisations is unlikely to be a profitable investment.
- The second layer of the fund would consist of impact investors (and potentially some high net worth individuals) who require relatively modest rates of return on their investment. The risk and rate of return on investment (and therefore also number of investors and size of investment) would depend on the degree to which losses and risks are covered by the first layer of the fund. Based on experience with the Access Growth Fund, the rate of return could be somewhere around 5%.

In order to efficiently identify viable investment opportunities, the investment platform would have to set up multiple smaller funds focused on specific geographical localities or types of education & training interventions. These would be managed by local/specialist fund managers with good knowledge of a given geographical locality and/or a type of intervention. The funds would likely be worth less than £10 million each.

The local/specialist fund managers would then identify relevant social sector organisations in need of funding and offer them small-scale unsecured loans. These loans will be repaid from the main revenue streams of these social sector organisations, including payments for services provided and revenues from owned assets. The interest rate charged on loans would most likely range from 10 to 15%.

Interviewees suggested that the overall operating costs of the investment platform would be somewhere between 5% and 20% of its total value. This would include costs for administration and management of the platform, costs of due diligence to select

local/specialist fund managers, and costs of due diligence to local/specialist fund managers when selecting suitable loan applicants.

Interviewees indicated the potential role of EU support in the investment platform is two-fold:

- The EFSI funding could be used to scale-up the provision of unsecured small-scale loans to social sector organisations. To leverage additional investment from private investors, it would be important for EIF to be involved in the first layer of investors, who take on larger proportion of the risks/losses associated with these loans. In this way, EFSI loan would be used to generate more attractive opportunities for other social investors and thus attract additional investment. However, the EFSI funding is made *pari passu*, suggesting this benefit would not be available;
- In which case, the EFSI funding might be accompanied by ESF grant support to cover first loss on investment. This is likely to be necessary to attract second-layer investors who require modest but positive returns on their investment.

A6.10.11 Assumptions / Risks

The main challenges in setting up the platform are:

- High expected first loss on investment (between 10 to 30%) due to:
 - High risk nature of the projects where there is likely to be a higher proportion of unrepaid loans than usual;
 - Small profit margins of social sector organisations, due to their focus on their social mission rather than profit-making;
 - Dependence of social sector organisations on unstable revenue sources, such as government and/or local authority funding;
- Sufficient number of projects in the area of education & training. Assuming an average loan size of £75,000, there would need to be an annual demand for loans from over 500 credit-worthy social sector organisations providing education & training services.
- Aggregation of a large number of diverse small-scale projects into a single investment opportunity. Identifying credit-worthy social sector organisations requires considerable experience with investing into services to be delivered and good knowledge of the local social sector.

A6.10.12 Aggregation Potential

A6.10.12.1 Likely spatial scale

An investment platform covering a broad range of education & training interventions would most probably operate at national level.

An investment platform focusing on a single area of education (e.g. pre-primary education) would likely need to be international to generate sufficient demand for loans. The interviewees indicated that the advantages of an international specialist platform would be:

- More efficient identification of suitable investment projects due to narrower focus, leading to cost savings and therefore potentially higher returns on investments; and
- Potential to generate more innovation and efficiencies, because the platform would be able to compare results of social sector interventions at international scale and select the most efficient ones.

A6.10.12.2 Possible platform sponsors

There are two potential candidates that could be platform sponsors:

- The Government Department for Education, which expressed interest in setting up investment funds to stimulate social investment into the area of education and training.
- The Big Society Capital, a private financial institution set up by the government to grow and develop the social investment market in the UK (see box below).

Big Society Capital

The Big Society Capital is a private company authorised and regulated by the UK's financial conduct authority. It was set up by the Government in 2012 with the specific purpose of growing and developing the social investment market in the UK. The company is independent from the Government, although there is a Government appointed member on its board.

The Big Society Capital is responsible for investing money from dormant accounts collected by the government from private banks and building societies. In addition, the company uses share capital from four major UK banks (Barclays, Lloyds, RBS and HSBC) for its investment activities.

The company focuses solely on investment into social sector projects, seeking a rate of return on its investment ranging from low to high single digits. It aims to be financially self-sufficient in the long term, covering all its costs but not necessarily generating profits.

Current Big Society Capital investments lead, on average, to financial losses. This is because the company invests in order to develop the UK's social sector and thus can target high-risk, low-profit projects if these are perceived to make substantial contributions to the growth of the sector. In time, as the sector grows and more investment opportunities become available, it is expected that the investment activities will cover their costs or even generate a moderate profit (to be reinvested in the social sector activities).

A6.10.13 Summary of the investment opportunity

Tentative findings from qualitative research suggest an investment platform could be set up to invest more than €40 million into education & training services delivered by the UK social sector. It could invest into these services by providing small scale unsecured loans to social enterprises and charities.

There is some scope for EFSI investment into this opportunity. For example, EFSI could provide an investment of £20 million to be matched by national private investors at one-to-one ratio. This would lead to a total investment supply of about €40 million, potentially covering the investment needs of social sector organisations delivering education & training services.

The platform would need to aggregate a large number of diverse small-scale projects into one large investment opportunity. In practice, the platform would need to be a fund-of-funds which would provide loan finance through several smaller funds run by local/specialist fund managers who would identify relevant projects.

Setting up the platform would be challenging because of the nature of the investment opportunity, which is fundamentally aimed at achieving social outcomes rather than profit. This would require attracting investors willing to invest into risky low-return projects. It would also require securing some non-repayable grant support to cover for first losses on investment. It would be desirable to use ESF grant support for this purpose.

When setting up the platform, it would be useful to build on experiences with the Access Growth Fund, which aims to provide small-scale debt finance to social sector until about 2022. This could help with identifying suitable investors and local/specialist fund managers, and also with designing optimal platform structure. Setting up the platform towards the end of operation of the Access Growth Fund would also ensure the continuity of the national investment supply.

The investment platform would enable achieving various social outcomes that would not be achieved without EU support. These outcomes would likely lead to some additional government savings (for example related to preventing people from becoming NEETs) and improvement of some aspects of the national educational system, such as support of students with SEND or improvement of youth transition from education into employment.

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