







Financial Management in JESSICA Implementation

Designing Guarantee Products

JULY 2013

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The case studies and financial simulations are purely for theoretical and explanatory illustration purposes. The projects studied in no way anticipate projects that will actually be financed using Financial Instruments.



Executive Summary

This Study examines how best to design guarantee products, in the context of Financial Instruments ("FI")¹, to meet current demand and market failure in urban development and regeneration projects. It seeks to demonstrate why the use of Financial Guarantees ("FG") can be, in certain contexts, more suitable to foster urban projects compared to other financial products including subsidised loans. The Study also defines the most appropriate FG structures, risk allocation, and performance indicators, and recommends a fund structure that could be set up by Managing Authorities ("MA") to offer FGs as a FI in JESSICA implementation.

JESSICA initiative

JESSICA - Joint European Support for Sustainable Investment in City Areas - is a technical assistance initiative of the European Commission ("EC") developed jointly with the European Investment bank ("EIB") and in collaboration with the Council of Europe Development Bank ("CEB") with the aim of supporting sustainable urban development and regeneration through FI. The objective of JESSICA is to address the challenges of the complex urban sector and to deploy FI as a strategic tool for cities to promote investment projects as an integrated investment strategy rather than on a stand-alone basis.

Under procedures applicable in the 2007-2013 programming period, MAs in the Member States ("MS") are offered the possibility to invest some of their Structural Funds ("SF") allocations in FIs (revolving funds) supporting urban development and recycle financial resources in order to enhance and accelerate investments in Europe's urban areas. These FIs are Urban Development Funds ("UDFs") investing in public-private partnerships ("PPPs") and other projects included in integrated plans for sustainable urban development. MAs can decide to channel funds to UDFs using Holding Funds ("HFs"), which are set up to invest in several UDFs. This may offer the advantage of enabling MAs to delegate some of the tasks required to implement FI to expert professionals.

The main benefits of JESSICA are to (i) make SF support more efficient and effective by using "nongrant" FIs, thus creating stronger incentives for successful project implementation, (ii) mobilise additional financial resources for PPPs and other urban

with development projects focus sustainability/recyclability, and (iii) use financial and managerial expertise from international financial institutions such as the EIB and the CEB. This should allow public and private parties to develop small- and large-scale urban development projects, which could not be realised by one party acting alone. Since capital is given out as loans, equity or guarantees, not as grants, only projects that generate return flows (i.e. repayable investments) can be financed.

failure in urban Market development regeneration

Europe continues to suffer from the consequences of the 2007-2008 banking crisis, and the lending market remains tight. Although interest rates are relatively low, tenors and covenants reflect an aversion to risk. In the meantime, many urban development and regeneration projects require lending, for two main reasons: (i) the availability of equity does not cover the whole project cost; and (ii) the returns are relatively low and should be leveraged to attract potential investors. The tangible aspect of urban projects should facilitate access to loans by providing lenders with a valuable guarantee or security (be it a property, a site or an infrastructure asset). Lenders commonly accept mortgage-backed funding structures.

However, urban projects promoted through funds set up in the context of JESSICA often feature assets whose value is limited or negligible. This can be the case because the site is located in a deprived area, it is contaminated, or because the properties or infrastructure are in poor condition. More generally, it is because the success of the project relies on some degree of uncertainty, and the associated risks (construction and demand for the service, etc.) are poorly mitigated. In such a scenario, lenders require additional guarantees.

The private sector is not in a position to carry out such investments in isolation and also not often incentivised to realise the expected socio-economic benefits; therefore the public sector has to step in. However, austerity programmes, investment ceilings, and the reduction in national and regional budgets put an additional burden on the investments. The challenge is to combine, in an efficient and attractive way, multiple funding sources such as local budgets, European SF and private investment. The JESSICA initiative was

¹ A list of abbreviations is included on pages 56-57.





developed to respond to the challenge of realising the urban investments needed.

FGs – background and rationale

Guarantees are financial products, which can enable the guarantor to leverage its creditworthiness to assist eligible borrowers, public and private, to obtain additional financing from the private sector. Coverage of risks that the market is unable to bear or adequately evaluate should attract new sources of financing, reduce financing costs and extend maturities. Although guarantee products contain a level of risks generally similar to those associated with loan-based financial products (such as credit, liquidity, and currency risks), these risks can be substantially mitigated, potentially with the same measures and instruments as loan-based financial products; to offer a "potentially powerful instrument to facilitate urban development operations and mitigate financial risks faced by UDFs and urban projects as final recipients of assistance from FIs for urban development".

Financial products established by MAs under the JESSICA initiative have been predominantly loan-based, with some equity-based; whilst no guarantee-based instruments have been deployed. However, guarantees in an urban development and regeneration context follow a similar principle, namely to facilitate additional lending to viable projects, which lack adequate security or a proven track record for a standard commercial loan.

In terms of managing the portfolio risk, it is possible to use an economic capital model that is widely used as a risk management tool in the finance and insurance industry. It helps to define the minimum amount of capital the guarantor needs to hold in order to sustain larger than expected losses with a high degree of confidence over a defined time horizon and given the risk exposure and risk tolerance. The model can help evaluate concentration risk and so can be used to set various types of exposure limits. The model can also provide the analytical basis for risk based pricing and quantification of the need for prudent technical provisions of claims.

Because these instruments can be complex and quite varied, it is often not well understood how they can best be used for urban regeneration. Likewise, the structuring of guarantees is made all the more difficult for MAs given the multi-party funding architecture which can include four potential risk allocation and stakeholder levels: the MA, the HF (if and when it has been set up), the UDF, and the urban projects. In the

simplest form of implementation the MA would deploy a guarantee product using SF to enable additional lending of a financial intermediary for an eligible project. This exemplifies the aforementioned multi-layered architecture and the resulting need to align interests of the associated parties. The MA has to ensure that a market gap exists, that a guarantee is an adequate solution and that the projects financed are in the interest of their policy goals. The financial intermediary on one side has to ensure the eligibility of the project and on the other be sufficiently attracted by the compensation scheme to engage in such operations. Finally, the conditions of the financial product have to be attractive for the beneficiary to have a truly enabling effect.

There are a number of additional challenges when setting up guarantees which need to be taken into account: (i) the cost of setting up the guarantee structure (and the UDF and possibly the HF) as well as the on-going operations should not be underestimated; (ii) the time needed to set up the instruments and ensure that they are properly run (risk management, governance, legal) may not meet the expectations or time frame of those parties looking for guarantees; and (iii) for any guarantee facility to be self-sustaining and to ensure that funds can be recycled for new projects will likely take a number of years.

Suggested FGs and structures

Three different projects have been analysed in this Study to work out possible FG structures that may be applicable for other projects within similar sub-sectors facing similar market failure. The selected projects have been chosen to represent a large spectrum of potential projects in the urban domain: (1) a small scale district heating project in Eastern Europe; (2) a medium size energy saving retrofit project in Northern Europe; and (3) a large scale urban regeneration project in Southern Europe.

The purpose of the case studies proposed in this Study is to describe and simulate how guarantee structures employing European Structural and Investment Funds ("ESI Funds") could work in a practical context. More specifically, the Study looks at the (i) market failure in each of the case studies proposed to see how guarantees might unlock these projects, (ii) rights and obligations of the various parties under different scenarios, (iii) financial streams amongst the parties involved in the transaction, and (iv) performance

indicators that are suitable to evaluate the effectiveness of FGs.

The case studies demonstrate different implementation structures that might be put in place to manage the guarantees. Depending on the market, the region and the sector, it may make sense to have sector based guarantees funds, region based funds, a combination of the two, or a broader fund that is able to offer several financial products (guarantees, loans, equity). In each case study, the analysis covers five areas:

- Project description and similarities to other sub-sectors;
- Project impact;
- Market failure assessment;
- Guarantee structure proposed; and
- FG fund structure and optimisation.

In order to look at the issues surrounding the implementation of FGs in the context of the JESSICA initiative, the Study has looked at three key aspects:

- Strengths and weaknesses associated with each party of JESSICA's multi-party funding architecture and their ability to serve as guarantor;
- The degree to which guarantee-based financial products need to be backed by cash in the UDF structure; and
- Environment and market situation with respect to demand for and applicability of guarantees for urban development projects, e.g. level of guarantees required and their potential impact, and types of urban development and regeneration projects that are likely to see more demand for guaranteebased FIs and impact this has on the project structure.

Financial model templates have been prepared for each of the three case studies to make explicit the key payment flows and financial streams between the different parties and the key performance indicators ("KPI"), including but not limited to credit enhancement and co-investing impacts. The purpose of the financial model templates is to provide a high level overview of:

 Total project cash flows (revenue, construction, operating cost assumptions, indexation, etc.);

- Relevant project financial and commercial structure of each case study (funding and cash cascades, debt/equity servicing, etc.);
- Percentage guaranteed (from the underlying loan/equity amount),
- Timing of payment (upfront, pay as you go, smaller payment amounts upfront, etc.),
- Positioning (front/back loaded), and
- Maturity (duration period) of each proposed guarantee-based instrument within each of the case studies.

The three case studies have demonstrated the potential added value of guarantees. The latter are not designed to be the panacea for all the projects that are currently blocked. When public sector budgets are constrained, there is a realistic opportunity to realise some of these projects through credit enhancements using ESI Funds. As shown by the case studies, these can be projects that further open the Energy Efficiency sector to SMEs, projects that have a very strong environmental impact, or larger projects that can revitalise a region.

Implementation in 2014-2020, eligibility and State aid

In the light of the expected change in the regulations for the next programming period, it is important to understand the process that should be applied to analyse projects before devising a FG using ESI Funds. In the programming period 2014-2020, there are 11 thematic objectives that could authorise the use of ESI Funds and FIs. The approach proposed by the EC is rather flexible; costs can be covered by multiple objectives and the same project can obtain funding from different Operational Programmes covering different eligibility criteria.

The 11 thematic objectives are:

- 1. Strengthening research,
- 2. Technological development and innovation;
- Enhancing access to, and use and quality of, information and communication technologies;
- Enhancing the competitiveness of small and medium-sized enterprises, the agricultural sector and the fisheries and aquaculture sector;
- 5. Supporting the shift towards a low-carbon economy in all sectors;
- 6. Promoting climate change adaptation, risk prevention and management;

- Protecting the environment and promoting resource efficiency;
- 8. Promoting sustainable transport and removing bottlenecks in key network infrastructures;
- Promoting employment and supporting labour mobility;
- Promoting social inclusion and combating poverty; Investing in education, skills and lifelong learning; and
- 11. Institutional capacity and efficient public administration.

The Presidency compromise on financial instruments of June 2012 introduces a change and suggests that request for payment expenditure (or fund disbursement) should be phased. The following contributions would be subject to the actual spending of each previous contribution. The mechanism would be the following: 1st contribution: 25% maximum of the total programme contribution to FI; 2nd contribution: 25% maximum subject to the spending of 60% of the 1st contribution; and 3rd contribution and following: 25% maximum subject to the spending of 85% of previous contribution. This mechanism is designed to avoid having significant funds available in FI with no or few actual disbursements made to projects. Nonetheless, the flow of funds will differ markedly for guarantees when compared to loan instruments. This is a point that needs to be taken into account (especially in the programming period 2014-2020) when deciding whether or not the funds flow to the MA in tranches (as milestones are reached) or upfront.

There are four levels of methodology used in assessing aid compatibility: No aid - De minimis (under a certain amount); General Block Exemption Regulation ("GBER"); Standard assessment; and detailed assessment. Where the aid measure satisfies all the conditions laid down in the 'de minimis' exemption, there is no requirement to submit any notification to the EC (although MS are obliged to monitor such aid in line with the 'de minimis' Regulation). Individual aid measures or aid schemes that satisfy all the conditions laid down in the GBER adopted by the EC do not need to be notified to the EC. The MS is instead required to submit to the EC a summary description of the aid measure within 20 working days following the implementation of the measure. For measures exempted from notification under the GBER, the MS also have an obligation to publish on the Internet the full text of such measure and keep it posted as long as the measure is in effect.

Fund structure and investment strategy

If MAs want to put in place guarantee structures, they need to consider: (i) the general recommendations and lessons learnt about FIs, (ii) how to provide guarantees alongside other financial products (namely equity and debt but possibly seed capital as well), (iii) how to write the related section of their OP to offer the maximum flexibility, and (iv) actions that need to be taken and, in some cases, a decision on what kind of TA is required.

A number of lessons can be drawn from the private and public bodies interviewed during the market testing of FG as well as during previous feasibility studies for FIs. Whilst more details are provided in the Study, some of these lessons need to be highlighted: (1) FIs, including FGs, are appealing to local authorities and the private market if set up properly and based on local needs; (2) market failure assessments require different steps of analysis (at macro then micro levels) and need to be updated during implementation to ensure a continuing fit with market conditions; (3) education of the public and private sector with respect to revolving investment funds and other FIs takes time and requires good communication; (4) financial and non-financial returns (social, economic environmental) in projects for which a FG is issued should be considered together within a blended approach that enables both the private and public sector to be attracted by the risk/return balance of an investment strategy; (5) creation of a dedicated fund for FGs depends on the scale of funds available and the granularity of projects to finance; and (6) project identification and a proper pipeline are key to engaging in discussions with the private sector as well as making the fund set-up a success.

FGs are very specific instruments. Their risk approach might be similar to loans but their initial purpose and financial structure make them different. They therefore attract different investors and might need to be isolated and provided through a dedicated fund. FGs are complementary to equity and loans. MAs should consider providing FGs with their ESI Funds only if the market requires it, and after an ex-ante assessment has clearly identified a concrete pipeline of projects that would benefit of these FGs. In any case, loan and equity instruments should be considered as well while trying to address the market failure in urban development and regeneration. If the MA wants to establish a FI and provide FG, the OP for the next programming period will have to include this option. Once the OP is agreed, a communication strategy needs to be put in place to achieve support and 'buyin' from the public and private sector.

Implementing FIs and especially FGs require a long preparation period, including several steps and milestones. While the aim of this Study is not to detail the steps to be followed, there are a number of actions that need be undertaken some of which can be supported with TA.

Articles 51 and 52 of the Commission Proposal state what TA can be provided, at the initiative of the Commission or at the initiative of a MS. The usual tasks covered by TA include: project preparation and appraisal, management of FIs, launch of studies such as ex-ante assessment, fund structuring, co-financing co-investment assistance seeking, communication campaign, audit of schemes regarding eligibility and state aid, general project management. This study recommends that the MA set up a dedicated axis to TA (in line with Article 109 of the Commission proposal for the CPR) in their OP, so that MA can benefit from the available expertise, especially where FIs are implemented for the first time or where previous FIs have not provided the expected result.

Conclusions and recommendation

In the current market, the long list of banks that traditionally played an important role in PPPs, infrastructure deals and JESSICA type projects are, in many cases, no longer around or have had their operations severely curtailed. This problem is exacerbated with Basel III requirements on financial institutions. Under Basel III, a new definition of capital is introduced to increase the quality, consistency and transparency of the bank's capital base. It also requires higher capital ratios and strengthens the requirements for the management and capitalization of counterparty credit risk. It includes an additional capital charge for possible losses associated with the deterioration in the credit-worthiness counterparties or increased risk weights on exposures to large financial institutions.

In this context, JESSICA has a role to play in order to fill a market gap that exists today. Guarantee structures and risk sharing structures can help mobilise commercial financing (including local commercial banks for example) to fund regional needs, i.e. projects that address both the socioeconomic policy goals as well as the financial return requirements of investors. Local financial institutions in some countries may not be able to lend for more than 5-7 years. One possible use for the guarantee would be to extend maturities. The key is to ensure that the benefits of using guarantees are made clear in order to promote leverage as opposed to creating competition with grant financing. It is also crucial to always keep in mind that financial engineering or credit risk enhancement with guarantees will not convert a "bad" project into a "good" one.

Many developers have a good understanding of local market conditions and the risks associated with municipal/regional urban projects. They may also, in many cases, have a higher tolerance for risk than an international investor, due to the potential information advantage and regional affection. While there may be risks at every stage of the project life cycle (development, construction or operation), most occur at the early (seed capital) stage, which the local investor is unable to address.

For local authorities, a FG adds comfort due to the fact that the project has been looked at by specialists, and that a percentage of the investment notional could actually result in the unblocking of projects without having to tap into the city's or region's balance sheet. Finally, for the national government, the regional authorities, or the municipality (or a combination of some or all of them), the availability of additional financial products in the form of guarantees (in addition to equity and debt) may facilitate planning and the ability to roll out the various phases of the urban plan approved at the MA level.

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Introduction

The European Commission ("EC") is encouraging² Member States ("MS") to make greater use of Financial Instruments ("FI"), combining them with European Union ("EU") grants if necessary, in order to support projects that cannot attract sufficient levels of private sector co-investments alone, and that offer non-financial impacts in line with EU policy objectives. Such revolving investment mechanisms (*i.e.* repayable and recyclable funding) work in favour of economically viable urban development projects, and make it possible to increase the financing capacity of Managing Authorities ("MA") over time.

Europe continues to suffer from the consequences of the 2007-2008 banking crisis, and the lending market remains tight. Although interest rates are relatively low, tenors and covenants reflect an aversion to risk. In the meantime, many urban development and regeneration projects require access to loans, mainly for two reasons: (i) the availability of equity does not cover the whole project cost; and (ii) the returns are relatively low and should be leveraged to attract potential investors. Because the success of the project relies on some degree of uncertainty, and the risks (construction and demand for the service, etc.) are poorly mitigated, lenders require additional guarantees.

Within the framework of a grant awarded by the EC, the Mazars-InfraLinx consortium was selected by the European Investment Bank ("EIB") to produce an evaluation report on using Financial Guarantees ("FG") in JESSICA Implementation (the "Study"). This Study examines the possibilities of using such FIs for urban development projects within the next programming period (2014 – 2020) and the remainder of the current programming period.

The objectives of this study are to:

- a) Assess the demand and understand the market failure that could be addressed with FGs in the context of FIs;
- b) Analyse the various characteristics (risk profile, pricing, multiplier effect, value added and regulation) of existing FGs in the market;
- c) Define the most appropriate FG structure, risk allocation, pricing and performance indicators for JESSICA implementation and urban development projects, through a detailed analysis of three relevant projects.
- d) Demonstrate why the use of FGs are, in certain contexts, more suitable to foster urban projects compared to other financial products including subsidised loans;
- e) Clarify the European framework and State aid regulations that might affect the use of FGs in JESSICA implementation; and
- f) Recommend a fund structure that could be set up by MAs to offer FGs as a FI in JESSICA implementation.

The methodology used to produce this study and achieve these objectives has followed the approach below:

- Through a desktop research and interviews: understand (i) the use of FGs by existing market players and (ii) the current market conditions and market failure in urban development and regeneration.
- Through workshop sessions and desktop work: adapt existing FGs structures to Urban Development and Regeneration.
- With financial modelling and soft market testing: test these structures with three case studies.
- Through desktop work: make recommendations to MAs willing to put FGs in place.



By encouraging the investment of private capital in sectors that are usually less attractive and less profitable to private sector investors, FIs could enable new forms of public-private partnerships ("PPPs"), where complementary roles contribute to the development of projects that are in the public interest. The Study aims to support this initiative and bring additional technical knowledge for the development of FIs across the EU.

² Brussels, 9.11.2010 COM (2010) 642 final - {SEC (2010) 1348 final}.





1. JESSICA initiative and urban development challenges

1.1. The JESSICA initiative and addressing the market failure

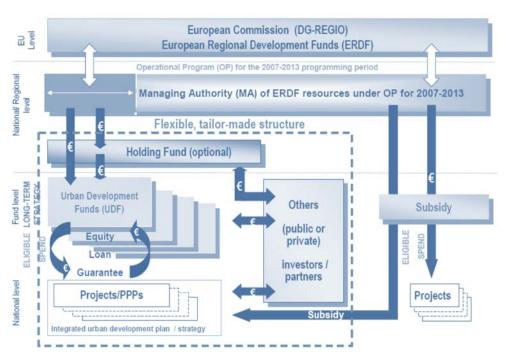
JESSICA - Joint European Support for Sustainable Investment in City Areas - is a technical assistance ("TA") initiative of the EC developed jointly with the EIB and in collaboration with the Council of Europe Development Bank ("CEB") to support sustainable urban development and regeneration through FIs. The objective of JESSICA is to address the challenges of the complex urban domain and to deploy a FI as a strategic tool for cities to promote investment projects as an integrated investment strategy rather than on a stand-alone basis.

Under procedures applicable in the 2007-2013 programming period, MAs in the MS can invest some of their Structural Funds ("SF")³ allocations in FIs (revolving funds) supporting urban development, and therefore recycle financial resources in order to enhance and accelerate investments in Europe's urban areas.

These FIs are Urban Development Funds ("UDFs") investing in PPPs and other projects included in integrated plans for sustainable urban development. MAs can decide to channel funds to UDFs using Holding Funds ("HFs"), which are set

up to invest in several UDFs. This may offer the advantage of enabling MAs to delegate some of the tasks required to implement FIs to expert professionals.

JESSICA was developed to support sustainable urban transformation by addressing a perceived shortage of investment dedicated to integrated urban renewal regeneration projects. It was launched to assist MS and MAs responsible for the implementation of OPs supported by SF resources in the 2007-2013 programming period to:



- Ensure long-term support to sustainable urban transformation through the revolving character of FI;
- Contribute financial and managerial expertise from specialist institutions such as the EIB, the CEB, other IFIs and financial institutions;
- Leverage additional financial resources for PPPs and other urban projects; and
- Create stronger incentives for successful implementation by final recipients.

UDF investments in urban projects should be structured so that: (1) expected financial returns are adequate to ensure that the resources employed can operate as revolving funds; and (2) expected socio-economic impacts are closely assessed during project appraisal, are achievable and are monitored. In this way, JESSICA is expected to build up a

³ EU Structural Funds (European Regional and Development Fund (ERDF) and European Social Fund (ESF)) for the programming period 2007-2013 will be renamed as European Structural and Investment Funds for the programming period 2014-2020 and will comprise the ERDF, the ESF, the Cohesion Fund (CF), the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF). As implementation of financial guarantee structures proposed in this Study are more likely to take place in the next programming period, when EU funds are mentioned, the Study refers to European Structural and Investment Funds unless for cases where the Study explicitly refers to Structural Funds of the current programming period.



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lasting legacy from the EU and national public funds, to be reinvested in the long term in sustainable urban transformation.

This should allow public and private parties to develop small and large-scale urban development projects, which could not be realised by one party acting alone. Since capital is given out as loans, equity or guarantees, not as grants, only projects that generate return flows (i.e. repayable investments) can be financed.

The legal framework of the JESSICA initiative enables all participating fund vehicles to make use of the following four different financial products: loans, mezzanine, equity and guarantees. The guarantees are a legally binding commitment given by a third party to pay the remaining balance of a loan, including unpaid interest, in the event of default by the main borrower.



Market failure and sub-optimal investment conditions

Europe continues to suffer from the consequences of the 2007-2008 banking crisis, and the lending market remains difficult at a time when many urban development and regeneration projects require lending. Under normal circumstances, the tangible aspect of urban projects would facilitate access to loans by providing lenders with a valuable guarantee or security, i.e. the underlying asset (be it a property, a site or an infrastructure asset). Lenders commonly accept mortgage-backed funding structures, unless their value does not meet the value of the loan.

However, urban projects promoted through funds set up in the context of JESSICA, often feature assets whose value is limited or negligible. This can be the case because the site is located in a deprived area, it is contaminated, or because

Areas in need cannot provide sufficient value on underlying assets however promising the project might be

the properties or infrastructure are in poor condition. More generally, it is because the success of the project is subject to some degree of uncertainty, and the associated risks (construction and demand for the service) are poorly mitigated. In such a scenario, lenders require additional guarantees.

A popular theme for urban projects where JESSICA funding is expected to have a catalytic effect on investments is Energy Efficiency ("EE"). With respect to EE in existing buildings, projects are based on the work required for retrofitting. The underlying tangible asset would be the energy equipment or technical materials added to the properties that have no value in and of themselves once they are used. In this case,

lenders will expect the parties involved in the project (contract owner or Energy Service Company ("ESCO")) to guarantee the loan, hence the importance of their creditworthiness in the financing structure.

Current market conditions do not allow the project manager to source additional guarantees in the case where the underlying asset has a low market value. On the other hand, the creditworthiness of contract owners or many ESCOs (the small or medium local entrepreneurs – not the major international firms) is unlikely to satisfy conditions put forward by the lenders. This market failure needs to be addressed so that these projects, which provide both a financial and a socio-economic return, can be developed.

The private sector is not in a position to carry out such investments in isolation, and also not incentivised to realise the expected socio-economic benefits; the public sector therefore needs to step in. However, austerity measures, investment ceilings and the reduction in national and regional budgets put an additional burden on the investments.

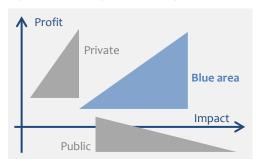
The challenge is to combine, in an efficient and attractive way, multiple funding sources such as local budgets, European Structural Investment ("ESI") Funds and private investment. The JESSICA initiative is fully in line with this reasoning and might therefore provide an answer to the challenge of realising the urban investments needed.

1.2. Unlocking the "Blue area"

The Blue area defines projects that have a positive economic, social and environmental outcome, and are financially viable but not necessarily to the degree required by the private sector who often refer to this as 'Triple-Bottom-Line Sustainability'. These projects should not be financed by the public sector alone, but rather through a combination of grants and private finance.

Current investment market practice continues to show a significant gap between profit-driven and policy-driven investments, despite the fact that they are very often complementary. The public sector designs projects that are focused on socio-economic and environmental benefits, but which may not necessarily be financially viable. Under

current austerity programmes, public authorities need to find alternative funding models. There has been a paradigm shift in financing urban development projects and the days of extensive public-sector grants are unlikely to return. JESSICA seeks to address the lack of integration in projects, and follows an investment strategy with common goals and a long-term view on urban development.



One of the challenges is to stimulate a shift in approach by MAs who may be used to financing projects without any revenue generation

capacity. Many projects that have traditionally been funded through grants are ill suited for revolving funds. As a result, the key challenges for MAs when looking at ESI Funds are to (i) identify a project or project type that merits financial support, (ii) adequately recognise the project's revenue generation capacity, and (iii) provide the appropriate financial product for this project, in this case a FG.

In many cases, the value added and investment cost of projects that benefit the private sector (infrastructure and other sectors that stimulate the local economy) is not necessarily shared between the public and private parties. The private sector often captures the value added of these public projects with short-term and high return developments. Tax, employment and other impacts on society tend to be minimised in the interest of increasing the wealth for a small group of investors. With a better understanding of the failure of this model in the current financial crisis, the private sector needs to seek alternative investment models, which offer reasonable returns (commensurate with the risks taken) and an optimal impact on society. This potential impact should allow private and public sector entities to develop new models of project development in which the long term vision, socio-economic and environmental impact and financial returns are compatible, and bring benefits to both the public and private sectors.

Projects that fulfil these investment criteria may already be available in the market, but are often unable to attract funding for different reasons: (1) innovative projects with a novelty barrier and little or no track record do not inspire the confidence of investors; (2) pilot projects may face difficulties in coming to the market as different resources are required and large-scale investors have different objectives compared to seed funders or venture capitalists; (3) some low profitability projects cannot benefit from grant funding but are not attractive enough for investors; and (4) other small projects require a reactive and flexible investment approach that traditional public funding cannot address. These

Abolish market boundaries, create new wealth and focus on socioeconomic impact projects, together with those that are at the conceptual stage and those that cannot be funded under current market conditions, generate demand for FI.

The objective of the JESSICA initiative is to address this gap by abolishing market boundaries in deprived urban areas and reducing or eliminating the risks of such investments for private sector participants. Indeed, the private and public sector need to work together in partnership, one providing strategic guidance and objectives as well as funding from different public sources, and the other providing expertise, work-force and

co-investments. Another aspect and expected strength of FIs are the design and preparation of existing and future projects. The investment criteria should enhance the project's potential for success by developing a consistent approach to business planning and risk mitigation. FIs are deemed more result-oriented than grant funding. Once properly set up, the FI will improve the "making sequence" by ensuring an adequate process for fund availability: as dynamic and reactive as private funding, and in line with typical project requirements. This would allow for a better use of public funds and a strategic shift from the "grants only" culture.

Better value and lower cost is the only sustainable future route for PPP projects. Although there is an urge to break from the status quo and go beyond motivational and political hurdles, authors of this Study trust that FIs, which may be regarded as cohesion policy impact funds, will not capture and redistribute existing wealth but will create new wealth

in an unconventional area focused on the projects' impact. FGs are one possible route among other types of financial products to successfully address this market opportunity.



2. FG for urban development and regeneration

2.1. Introduction to financial guarantees

Guarantees are financial products, which can enable the guarantor to leverage its creditworthiness to assist eligible borrowers, public and private, to obtain additional financing from the private sector. Coverage of risks that the market is unable to bear or adequately evaluate should attract new sources of financing, reduce financing costs and extend maturities.

Guarantees can bring multiple benefits to a project, including but not limited to the following:

- Provide a level of project security to attract private financial resources at a reduced cost;
- Enhance access to financing for projects/programmes which, in the absence of the guarantee, would have been too risky to attract private sector funding; and
- Broaden the scope of development activities by enabling the leverage of the guarantor's financial strength to help attract more private financial resources.



Although guarantee products contain a level of risks generally similar to those associated with loan–based financial products (such as credit, liquidity, and currency risks), these risks can be substantially mitigated, potentially with the same measures and instruments as loan-based financial products, to offer a "potentially powerful instrument to facilitate urban development operations and mitigate financial risks faced by UDFs and urban projects as final recipients of assistance from FI for urban development".

Facilitate access to finance, increase loan maturity and reduce cost

Guarantees (sometimes known as 'credit insurance') require the guarantor to make specified payments of principal and interest to reimburse the guarantee holder for a loss it incurs if a specified debtor fails to make payment when due under the original or modified terms of a debt instrument. These contracts can have various legal forms such as FG, letter of credit, credit default contract or insurance contract.

Guarantees can be issued to project companies (or to investors or lenders) in order to facilitate access to external finance (mainly private sector loans) in return for a processing fee to cover both the risk exposure and the administrative and processing costs. Guarantees can be an appropriate financial product when project companies are unable to provide the lender – typically a bank or leasing company – with the necessary collateral to gain access to debt finance on reasonable terms (be it price and/or tenor of the loan).

Financial products established by MAs under the JESSICA initiative have been predominantly loan-based, followed by equity-based, whilst no guarantee-based instruments have been deployed to date. However, guarantees in an urban development and regeneration context follow a similar principle, namely to facilitate additional lending to viable projects, which lack adequate security or a proven track record for a standard commercial loan. Guarantee products can generally be classified as follows:



- Credit guarantees, which cover losses in the event of a debt service default, irrespective of the cause of the
 default. These include partial credit guarantees provided by multilateral and bilateral institutions, and full
 credit guarantees or "wrap" guarantees provided by monoline insurers.
- Export credit guarantees or insurance, which cover losses for exporters or lenders financing projects tied to
 the export of goods and services. These will generally cover a percentage of political and commercial risks
 (i.e. comprehensive guarantees) and are provided by Export Credit Agencies ("ECAs") and private insurers.
- Political risk guarantees, which cover losses arising from specific political risk events (both debt and equity)
 and are provided by the private insurance market, ECAs, and multilateral agencies.



In terms of managing the portfolio risk, it is possible to use an economic capital model that is widely used as a risk management tool in the finance and insurance industry. It helps to define the minimum amount of capital the guarantor needs to hold in order to sustain losses with a high degree of confidence over a defined time horizon and given the risk exposure and risk tolerance. The model can help evaluate concentration risk and so can be used to set various types of exposure limits. The model can also provide the analytical basis for risk based pricing and quantification of the need for prudent technical provisions of claims.

With respect to reserve for claims, there are (1) specific reserves which are based on parameters associated with existing guarantee contracts that are known to be facing difficulties (includes claims probability, severity and expected recovery), and (2) portfolio

reserves whose parameters are established in advance and based on pre-agreed parameters based on the long term historical perspective of the business.

When considering the capital to guarantees issued ratio, one will need to look at market practice (both public and private) in order to recommend an appropriate ratio for guarantee products that are offered by FIs and implemented through JESSICA. It is clear that the biggest leverage will be in the scenario where the guarantor is able to underwrite guarantees for a multiple of the paid-in capital; keeping in mind that revenues come from premium income and investment returns. Also, in case of losses, the guarantor will be subrogated to the rights of the guarantee holder (these could be loans or assets for example).

Because guarantee instruments can be complex and quite varied, it is often not well understood how they can best be used for urban regeneration. Likewise, the structuring of guarantees is made all the more difficult for MAs given the

multi-party funding architecture which can include four potential risk allocation and stake-holder levels: the MS, the HF (if and when it has been set up), the UDF, and the urban projects. In the simplest form of implementation, the MA would deploy a guarantee product using ESI Funds to enable additional lending of a financial intermediary for an eligible project. This exemplifies the aforementioned multi-layered architecture and the resulting need to align interests of the associated parties. The MA has to ensure that a market gap exists, that a guarantee is an adequate solution, and that the projects financed are in the interest of their policy goals. The financial intermediary has to ensure the eligibility of the project and find the compensation scheme sufficiently attractive to engage in such operations. Finally, the conditions of the financial product have to be attractive for the beneficiary to have a truly enabling effect.



Lessons learnt

More specific challenges include the following: (i) the cost of setting up the guarantee structure (and the UDF and possibly the HF) as well as the on-going operations should not be under-estimated; (ii) the time needed to set up the instruments and ensure that they are properly run (risk management, governance, legal) may not meet the expectations or time frame of those parties looking for guarantees; and (iii) for any guarantee facility to be self-sustaining and to ensure that funds can be recycled for new projects will likely take 4-5 years (although it could take much longer depending on the capital structure of the fund, the premium rates charged and the default rate in the early years).

Existing guarantee structures in the market and lessons learnt are detailed in Appendix 1.

2.2. Suggested structures and case studies

To describe and better simulate how guarantee structures could work in a practical context, three case studies are analysed. More specifically, the Study looks at the (i) market failure in each of the case studies proposed to see how guarantees might unlock these projects, (ii) rights and obligations of the various parties under different scenarios, (iii) financial streams amongst the parties involved in the transaction, and (iv) performance indicators that are suitable to evaluate the effectiveness of FGs.

The case studies demonstrate different implementation structures (e.g. at the UDF or HF level) that might be put in place to manage the guarantees. Depending on the market, the region and the sector, it may make sense to have sector based guarantees funds, region based funds, a combination of the two, or a broader fund that is able to offer several financial products (guarantees, loans, and equity).

FG structures for three different types of projects

FGs could be made available for any project covered by the 11 thematic objectives (see section 3.1) from the EU Common Strategic Framework for 2014-2020⁴. In order to access a FG, and based on our case study analysis, a project would need to meet the following criteria:

- Project structure needs to be well understood by all the parties involved (a FG is unlikely to be provided if the 'novelty factor' is too high);
- Risk features need to be clearly identified, explained and allocated;
- Security structures need to be well understood by other lenders and insurers who might participate;
- Projects should be suitable for PPP structures, especially at a time when public sector budgets are constrained and when private capital is looking for credit enhancement; and
- Projects need to fit broadly within Government austerity plans.

Three different projects have been analysed to work out possible FG structures that may be applicable for other projects within similar sub-sectors facing similar market failure. The selected projects have been chosen to represent a large spectrum of potential projects in the urban domain:

- 1) District heating, a small-scale project in Eastern Europe;
- 2) Energy saving retrofit, a medium-size project in Northern Europe; and
- 3) Urban regeneration, a large-scale project in Southern Europe.

The case studies and financial simulations are purely for theoretical and explanatory illustration purposes. The projects studied are not intended to anticipate in any way projects that will actually be financed using FIs.

Case study analysis methodology

In order to look at the issues surrounding the implementation of FGs by FIs established within the JESSICA framework, the Study has looked at three key aspects:

Strengths and weaknesses associated with each party in JESSICA's multi-party funding architecture and their ability to serve as guarantor (i.e. the UDF, the HF, the MA, the EC); explore multiple approaches to the nature of potential guarantors in terms of their numbers, (i.e. single guarantor taking all risks versus multiple guarantors with each only taking the risk/s they are able to bear), positioning (i.e. identifying who can actually be a guarantor), and role (i.e. identifying how would the choice of guarantor impacts on the guarantee and/or UDF structure).

JESSICA multi-party funding architecture		
Level 1	MA / Member State;	
Level 2	Holding Fund (if established);	
Level 3	UDF(s); and	
Level 4	Urban Projects (final recipients)	

⁴ The scope of FIs is expected to widen in the next programming period, covering all the 11 thematic objectives of the Common Strategic Framework, and this may extend the variety of projects funded by FIs for urban development in 2014-2020. A more detailed discussion on the 11 thematic objectives can be found in Section 3.1.



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2. Degree to which guarantee-based financial products need to be backed by cash in the UDF structure. Several

options can be looked at: (i) full cash backing of 100%, in which case the UDF manager could be the guarantor. The 'added value' is any additional finance, which the project sponsor can attract from elsewhere as a result of having a guarantor; (ii) partial cash backing of less

UDF Investment scope	Geographical scope	Portfolio size	Project size	Project diversity	Correlation
Large scale urban development projects	Multi-city	<10	Large >50m	High	Low
Area based urban regeneration projects	Single city	15-25	Small/ Medium 2-15m	High	High
Energy efficiency in housing	Multi city	>>100	Small <2m	Low	High
Energy efficiency in public buildings (through ESCOs)	Single city	50-100	Small <2m	Low	Low

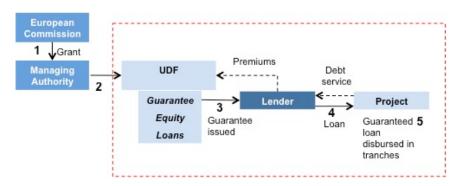
than 100%, based on the assumption that not all projects within the portfolio will default, and that there should be at least some form of recovery, through subrogation rights; and (iii) provisioning the UDF for guarantees on loans totalling more than 100% of fund's value.

3. Environment and market situation with respect to demand for and applicability of guarantees for urban development projects, e.g. level of guarantees required and their potential impact, and types of urban development and regeneration projects that are likely to see more demand for guarantee-based FIs and impact this has on the project structure. At the present time, guarantees might be needed as banks have heavy real estate liabilities and in many cases are not able to put additional assets on their balance sheets. However, the availability of guarantees could change this by UDFs acting as guarantors for commercial banks. Whilst such guarantees could raise issues with respect to market distortion and the overall purpose of UDFs, it should be noted that without the current economic crisis, such issues might not be present.

The flow of funds will differ markedly for guarantees when compared to loan instruments; this is a point that needs to be taken into account (especially in the next programming period) when deciding whether or not the funds flow to the MA in tranches (as milestones are reached) or upfront.

If a UDF is set up with a dedicated guarantee facility, the beneficiary will want to know that the facility has the ability to pay out claims, *i.e.* that it has the necessary reserves. Assuming the contributions to the HF or UDF are provided in various phases, starting with 25% of the committed amount, the HF or the UDF will need to institute strict rules that put a cap on the amount of guarantees that can be issued each year (this is the approach taken in the implementation of the JEREMIE initiative to support to SMEs through guarantees to financial intermediaries). When that cap is reached (be it mid-year or later during that same year), new guarantees are put on hold until the new contribution arrives. It is also important to keep in mind that such contributions will likely be linked to milestones (performance based) so that if no guarantees have been issued in any given one-year period, the next contribution might be put on hold.

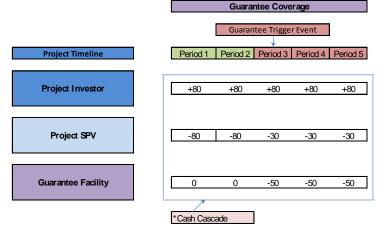
In the simplified structure shown below, an MA sets up a UDF, which has the ability to offer guarantees. Once the funds are transferred to the UDF, the latter then provides guarantees on a loan made by a commercial bank to a project.



Financial mechanism and fund flow

Financial model templates have been prepared for each of the three case studies to make explicit the key payment flows and financial streams between the different parties and the key performance indicators ("KPI"), including but not limited to credit enhancement and co-investing impacts. The purpose of the financial model templates is to provide a high level overview of:

- Total project cash flows (revenue, construction, operating cost assumptions, indexation, etc.);
- Relevant project financial and commercial structure of each case study (funding and cash cascades, debt/equity servicing, etc.);
- Percentage guaranteed (from the underlying loan/equity amount), timing of payment (upfront, pay as you go, smaller payment amounts upfront, etc.), positioning (front/back loaded), and maturity (duration period) of each proposed guarantee – based instrument within each of the case studies; and



• Illustration of the impact on project cash flows, funding seniority, and cash cascade provided by the triggering of the guarantee – based instrument in the event of project non-performance.

From the guarantor's perspective, the flow of funds will change over time, especially if there are claims and the guarantee is triggered. More details on the flows are presented below:

- The guarantor derives revenues from premium and interest on paid-in capital.
- If some projects are deemed to be "at risk", provisions will need to be made which will have an impact on net income.
- Special one-time reserves may also need to be put in place.
- If a claim is paid out, the guarantee may not necessarily continue as is. It may be cancelled, put on hold, or accelerated for example.
- Once a claim is paid out, the guarantor is subrogated to certain rights that would need to be enforced quickly so as
 to recover monies paid out. As a result, although a possibility, it is not necessarily true that there will be a widening
 of the payback period.
- One must also account for the fact that some guarantees might be cancelled (e.g. If Italian banks' credit ratings improve and no guarantee is necessary), assuming there was agreement to pay premium on an 'as you go' basis.

For the avoidance of doubt, the financial model template and subsequent case study models have not included the calculations of guarantee instruments pricing (price will be an input on which we will run scenarios) and will not run any stochastic analysis or any economic model.

Case study analysis structure

The case study analysis will cover five areas:

- a) Project description and similarities to other sub-sectors
- b) Project impact
- c) Market failure assessment
- d) Guarantee structure proposed
- e) FG fund structure, optimisation, and pricing

The project description provides background details, e.g. sector specific issues and challenges, existing legislation and proposed changes where relevant, importance of sector for host country, and potential replicability of models in other sub-sectors. The latter is important, as the purpose is to show that whilst the guarantee structure proposed refers to a specific area, there are other sub-sectors with similar risk-return features that may also be suitable for the use of guarantees. The project impact section reviews the projects' environmental, social and economic impacts on the municipalities.

The market failure assessment is key as it provides the rationale for proposing different guarantee structures. The section looks in detail at the factors that make it difficult or impossible for a project to go forward. The factors could be credit risk related issues, they could be linked to the current financial crisis, and they could also be linked to poor allocation of risks and inability (under current circumstances) to properly allocate risks among the parties best positioned to take on those risks. Having a good understanding of what is at the heart of the market failure is crucial in order to design a guarantee structure that works. This means that the guarantor and the lender must also have a thorough understanding of the project and sector characteristics to ensure a reasonable project prioritisation and selection in line with the goals of the MA. Financial engineering or credit risk enhancement with guarantees will not convert a "bad" project into a "good" one.

Based on the above information, the case studies consider the optimal guarantee structures to unlock the projects and propose FG fund structures that are specific to the sector and/or market. The key is to have a flexible approach as markets (and within markets, the sectors and regions) will differ and require different sets of tools as the three case studies demonstrate.

It should be noted that, with respect to pricing, there is considerable flexibility. The MA will need to decide, for example, whether or not the guarantee facility should price to risk or not. There are various examples in the market place. Some guarantors will price the guarantee based on an estimate of the total cost (covering both the cost of the risk taken on and the administrative costs) plus expected losses and risk load. The alternative approach would be to set a price equal or close to the market price that others are willing to charge. On the surface, this might appear attractive. It recognizes that a market for this guarantee product cover exists, that investors normally have alternatives, and that the guarantor operates within this market.

In practice, this may not be as easy, as the point here is for JESSICA guarantees to help get projects off the ground which might not otherwise be able to in the current market or simply because the risks are such that lenders, contractors, or developers are unable or unwilling to assume them. It is therefore possible for the MA to provide FG free of charge; this is a practice that is tried and tested under JEREMIE and eligible under State aid rules and current SF regulations. There would of course be strict conditions attached to the issuance of the guarantees, as well as proper risk assessment and audits to avoid moral hazard (which the incentive for taking additional risk because the entity that benefits from a guarantee is protected against losses).

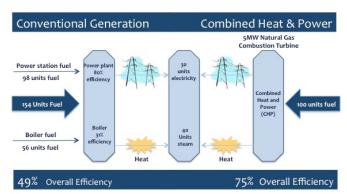
The point is that, when conducting *ex ante* assessments prior to launching a guarantee structure, the MA will need to determine who will benefit from the guarantees and what market segment is being targeted. It is quite possible, as some other IFIs do, to have a scenario where certain programmes (*e.g.* SMEs in the area of renewable energy) benefit from reduced rates or a zero cost option. One could also have a scenario in which the guarantee fund charges reduced rates in the early years of operations and gradually increases those rates to market rates as and when the market failure test begins to diminish.

Case study 1: District heating, a small scale project in Eastern Europe

a) Project description and similarities to other sub-sectors

The case study selected refers to a hypothetical small-scale district heating project to illustrate the regulatory and

business environment as well as the key characteristics of the business plan and the expected challenges for developers. The findings and conclusions of the case study are relevant for other sectors of key importance for small-scale environmentally friendly energy projects, e.g. biomass installations, waste-to-energy installations (municipal waste), thermo-modernisation (including public buildings and private / social housing and commercial areas / companies), and street lighting.

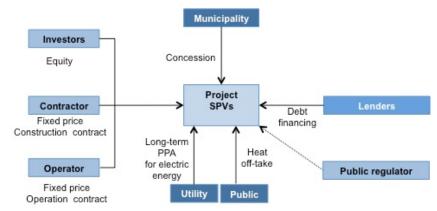


Combined heat and power ("CHP") is an

increasingly popular and scalable technology that allows for simultaneous generation of heat and power from a single fuel or energy source at or close to the point of use. CHP is a highly effective and environmentally friendly power and heat generation technology. It allows for 75-80% (potentially up to 90%) overall efficiency compared to 45-50% for traditional power which is combined with a separate boiler system.

The project is small scale (12 MWt / 4MWe) in a small, yet typical city in Poland, with the potential to build a substantial

pipeline of similar projects across the country. The Contracting Authority ("CA") is a local district heating company, which is a 90% subsidiary of the municipality, with the remaining 10% owned by employees. The CA will be fully responsible for distributing and selling heat to its end-users. The CA will enter into a long-term off-take agreement with the Developer



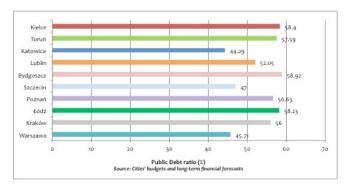
under which heat off-take, new customers' connections and long-term land lease are agreed.

The project's core risks include construction, environment, interconnection, market price, support system and operations. Additional project details are available in Appendix 2.

Funding Constraints

The Constitution of the Republic of Poland of 1997 introduces a threshold with respect to the maximum acceptable level of national public debt. Article 216.5 of the Constitution specifies that the country is not allowed to incur loans or issue guarantees or sureties which may result in the national public debt exceeding 60 per cent of the gross domestic product ("GDP") in a given year.

Taking into account the fact that most Polish municipalities are approaching their debt ceilings, and the new regulations that will be in place in 2014 are not expected to ease those requirements, most municipalities have already or will shortly reach their limits on financing capital investments from their balance sheets. The Figure below presents the debt levels of selected cities in Poland. The same is true, if not worse, for many smaller cities referred to in this Study.



As a result, municipalities are looking to develop and finance much needed capital investments without further increases in their debt levels, including off-balance sheet structures and PPPs. In the case of district heating networks, smaller municipalities may privatise the entire network, including the generation units, or find other structures that allow them to retain some control over the process without increasing debt levels. There are generally three models that can be implemented by the municipalities which are

described in the table below:

	Pros	Cons	Impact on public balance sheet
Privatisation	Additional revenue to public budget in privatisation process Necessary capital investments covered by private investor	 No control over investment plans (including new connections/disconnections) Possible job cuts in district heating company after privatisation obligations lapse No control over heat prices in the future Potential negative public reaction 	None, unless additional obligations taken by the municipality (e.g. take-or-pay contracts)
Long-term off-take contract with private developer	Necessary capital investments covered by private investor Less potential negative public reaction	 Might require additional direct support from municipality (e.g. support agreement) Depending on specific solutions, might not offer sufficient control over pricing policy in the future 	Depends on contractual solutions Depends if off-take contract is with municipal SPV rather than municipality directly (provided no additional support agreements or obligations of that type) Possible impact if long-term contract on take-or-pay basis
ddd	Necessary capital investments covered by private investor Less potential negative public reaction	 Still a new model, not well tested in the market Might not be practical for a low-value investment 	To decide whether a PPP contract constitutes 'national public debt', one must assess the risk-sharing provisions in the PPP contract in the context of Eurostat decision no. 11/2004 of 11 Feb 04 on deficit and debt. Polish public reporting regulations specify that pursuant to the Eurostat Decision, liabilities under a PPP contract are not part of the national public debt if private partner bears construction risk and at least one of either availability risk or demand risk. This statement is often tested and not clear in many cases and causes confusion at the municipal level.

It is also possible for the municipality not to take any actions, in which case there would be a status quo with continued negative environmental impact and gradual increases in the heating tariffs due to increasing environmental costs. However, the municipality cannot feasibly ignore environmental measures altogether due to the ongoing implementation of energy reduction measures such as the Energy Performance of Buildings Directive ("EPBD").

b) Project impact

Environmental Impact

CHP contributed to 15% of GHG emissions reduction in the EU between 1990 and 2006. According to the International Energy Agency ("IEA"), CHP can reduce power sector investment requirements by 7% over 25 years (period 2005 – 2030) as a result of the reduced need for transmission and distribution networks, and the displacement of higher-cost generation plants. Environmental benefits are also considerable. In Europe, for example, an estimated 15% of greenhouse gas emissions reductions (57 megatons) between 1990 and 2006 can be attributed to CHP.

By 2007, the U.S. Environmental Protection Agency ("EPA") had supported the installation of 335 CHP plants, achieving CO2 reduction equivalent to removing 2 million cars from the roads or planting 2.4 million acres of forest⁶. In a study undertaken to assess the cost of carbon abatements policies in the Netherlands, CHP was identified as one of the least-costly solutions (around EUR25/tonne of CO2 emission reduction), even lower than building insulation, condensing boilers and wind power.

CHP plants also reduce transmission and distribution losses as they are placed near the end user – this is of paramount importance to the Polish economy where the transmission infrastructure is obsolete and the transmission and distribution losses are higher than the European average.

Social impact

The implementation of clean and high-efficient technology and the disposal of coal-fired installations will reduce the air pollution levels of urban areas in towns and cities. This will contribute to better living standards and health conditions for local communities.

Additionally, due to the compelling economic rationale, the heating tariffs might be stabilised at their current levels (and in some instances come down), which in turn will have a positive impact on household expenditures in local communities as well as improve the competitiveness of local manufacturers and service providers.

c) Market failure assessment

Small and mid-size Polish municipalities do not have the financial resources to meet the capital expenditure ("Capex") requirements to fund state of the art CHP generation units; instead, municipalities attempt to treat projects as entirely commercial ventures, including privatisations of entire district heating networks, with no subsequent involvement of the municipality. In the proposed case study, the municipality would be involved indirectly via its district heating company. However, no further support agreements or other forms of municipal backing have been considered.

The financing for the project is currently locked due to the lack of partners (equity providers and/or banks) willing to assume the development risk of the project. The development phase for projects in the energy / renewable sector in several countries, including Poland, features inherent risks, mainly related to obtaining all permits and interconnections required. In this case, potential co-investors are concerned about potential delays in the development phase due to the lack of municipal permits (including potential need for changes in local development plans), environmental impact issues as well as potential challenges in obtaining gas and energy interconnections.

This risk is to a certain extent addressed by cooperation with experienced sub-contractors (including engineering and technical advisers) but most potential third-party equity investors want to see a couple of installations in operation before committing their funds. The local developer has injected seed-capital to cover initial expenses but has reached the limit on further funding.

The project offers a balanced risk profile during the operational phase. This is due to (1) a well-tested and widely-used simple technology, (2) long-term off-take agreements with financially sound utilities, and (3) viable financial forecasts

⁶ op.cit.



⁵ International Energy Agency, "Cogeneration and District Energy. Sustainable energy technologies for today... and tomorrow".

that allow some room for manoeuvre in case of negative changes in project assumptions before the project fails. The project also assumes exit options in the future.

The secondary market for renewable energy ("RE") installations in Poland demonstrates a sound appetite for operating assets. Potential buyers could be (1) an industry player such as one of the big utilities looking to balance its energy mix in order to fulfil its environmental obligations (the energy produced through co-generation is classified as environmentally friendly) or (2) a financial investor looking for stabilised cash flows backed by long-term contracts.

The developer has received positive feedback and several potential buyers have shown an interest in offering an exit option once the installations (preferably as one integrated portfolio) are operating and have been successfully tested during the ramp-up period. However, the development phase currently sees a lack of interest from large players due to the small-scale nature of the project, and limited appetite from commercial banks that are reluctant to be exposed to market risk (gas and energy prices as well as regulatory changes and pricing of yellow certificates).

d) Guarantee structure proposed

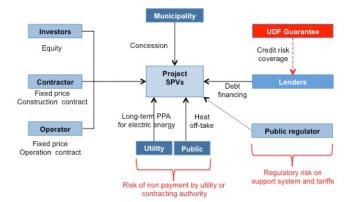
There are a number of risks associated with the project that will be assumed by various parties. However, as far as lenders are concerned, there are two key risks, which remain uncovered and need to be mitigated:

- The market risk (in particular electric energy, gas, and yellow certificates price risk), which would result in non-payment of the loan to the bank by the Special Purpose Vehicle ("SPV"); and
- The various regulatory risks (in particular tariff setting and revenue risk resulting from changes in the support system) and/or actions that the municipality might take which would also result in non-payment of the loan by the SPV. The proposed guarantee would be issued to the lenders to cover the above-mentioned risks.

Guarantee characteristics		
Maturity	12 years (or later maturities, e.g. years 7-12)	
% of debt to be covered	TBD	
Guaranteed percentage	100% or a lesser amount	
Payment of premium	Six month instalments in arrears	
Maximum aggregate liability	TBD depending on amount of debt covered	
Risk sharing	80:20 for the first loss piece	
Premium rate	TBD	

Additionally, lenders would want to see:

- The guarantee in place as soon as construction starts, keeping in mind that the construction period for small CHP projects should be a year of less; and
- A maturity going beyond the seven years which local banks are prepared to lend in the local market (which in turn would remove some of the pressure on the project). The guarantee might cover later maturities. Since the project



might attract local and foreign banks, there could be a scenario where local banks are more interested in covering later maturities (as they might be more comfortable with, and better understand, the risks in the early years), whilst foreign banks might seek to cover the full term of the loan. There is nothing in the guarantee structure that would prevent having two debt tranches with different forms of coverage.

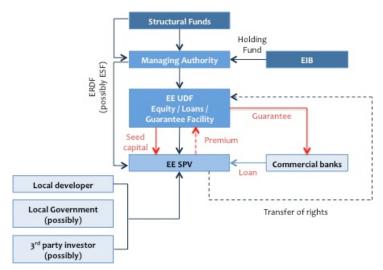
e) FG fund structure and optimisation

In the Programming Period 2014-2020, the EU funds will most probably be implemented in Poland through eight nationally implemented programmes, including one supra-regional programme covering the *voivodeships* of Eastern Poland, and 16 regional programmes.

The programmes that will be implemented at the national level include the 'Programme for environmental protection, counteracting and adaptation to climate change, transport and energy security'. As such, it is theoretically possible to establish a nationwide guarantee fund that supports certain areas / sectors covering the objectives of this programme, e.g. environmental protection or energy security that could be developed through environmentally friendly generation units.

Such a fund could be both product (guarantees) and sector oriented (EE). It could offer a much greater focus and a highly specialised fund management team, as well as allow for developing standard documentation and procedures that could expedite the absorption rate.

However, such a national level approach may not correspond to the experience of the current programming period. Indeed, taking into account the role of regional governments as MAs for the region-related EU funding so far, as well as the need to understand local requirements to successfully implement small-scale local



investments as described in this Study, the sector focused, multi-product, UDF at the local government level would most probably be the recommended implementation model.

The projects could potentially benefit from combined ESI Funds contributions, including a grant component to cover for TA services to support the implementation of the FI. The guarantee facility could be financed through the ERDF. The initial funds could be provided to the project companies either as seed capital through ERDF and/or in form of grants at the early stage of project development to cover "soft" costs such as energy studies, feasibility studies, designs and other project preparatory costs.

A possible hybrid model could be a UDF established by several local governments that, acting as MAs of regional funds, decide to cooperate in the EE sector. One might therefore envision several funds, which cover a number of regions. This model would target economies of scale (highly specialised management team) and justify upfront investments in the preparation of high quality standard documentation and procedures.

However, such a hybrid model would face some practical challenges at the fund management level due to different sources of financing from different MAs, as well as potentially different eligibility of projects in different regions. As explained earlier, under the current programming period, different regions have imposed different rules in the use of UDF funds. There is also the issue of losses which could only be payable from each regional pot, even though the funds are aggregated. One way to address this issue would be the put in place a second or even third loss risk taker, such as the EIB or other insurer.

While these are notable challenges, they are not insurmountable and MAs should not be discouraged from cooperating with each other to establish FIs in investment areas with significant benefits. Regional minimum investment volumes, concentration caps and other investment guidelines can be contractually agreed with fund managers to mitigate the concerns of MAs.

Case study 2: Energy saving retrofit, a medium-size project in Northern Europe

a) Project description and similarities to other sub-sectors

The case study refers to a project in the health sector in the UK. The health sector organisation (the "Health Unit") would finance the implementation of a package of EE measures through a corporate loan or prudential borrowing. These measures would be implemented and operated by an ESCO that in return would receive an upfront payment from the Health Unit. The ESCO would guarantee the energy and cost savings results from the EE measures through an Energy Performance Guarantee ("EPG") and the Health Unit would recover the upfront investment through these guaranteed savings.

The ESCO would provide a 10-year EPG to the Health Unit that would guarantee an agreed amount of yearly energy savings in monetary terms (the Guaranteed Energy Savings, "GES"). The amount would be a monetary value based on the historic utility bills and the assumed energy savings.

At the end of each year of operations the ESCO or a third party provider would calculate the actual energy savings and compare them with the GES. If the actual energy savings were to be higher than the GES these would be divided evenly between the ESCO and the Health Unit. If the actual energy savings were to be lower than the GES, then the ESCO would pay the Health Unit the difference.

In this case, the ESCO would be an SME with significant technical experience as a subcontractor to larger ESCOs or Utilities but with a small balance sheet compared to the EPG amount. The Health Unit would be keen in appointing the ESCO, as it would provide expertise, good value for money and local employment. However, the Health Unit is concerned with the robustness of the ESCO's balance sheet and its credit status over the long term.

b) Project impact

EE projects will have a number of positive impacts, e.g. energy and demand savings, avoided emissions, health benefits, employment support and creation, energy security, transmission and distribution benefits, as well as water savings. The magnitude of these impacts will differ in residential efficiency retrofit, commercial building retrofit, industrial motors retrofit, or new building construction incentive programmes, and should be aligned with the expectations of key stakeholders.

Additional non-energy benefits may include: increased safety resulting from gas reductions through the installation of new and high efficiency furnaces; lower levels of illnesses, resulting from the elimination of mould with the installation of air sealing, insulation and ventilation; and lower repair and maintenance bills resulting from higher efficiency of the new equipment.

More generally though, the MA interested in the implementation of such a scheme should consider the benefits at the micro level (individuals, households, enterprises), at the macro level (job creation, reduced energy related expenditures, energy security, macroeconomic effects), and at the global level (reduced emissions, moderating energy prices, natural resources management, development goals).⁷ EE projects can therefore generate considerable value in the form of carbon credits, energy savings, reduced replacement costs, and less required investment in generation capacity.

⁷ "Spreading the net: the multiple benefits of energy efficiency improvements", International Energy Agency, 2012.



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c) Market failure assessment

The significant potential for cost-effective investments in EE is not being realised, and neither promoters nor financiers are properly incentivised to carry out projects in this area. Market failures and other barriers to EE means less investment in this sector than one would expect in the UK. There are a number of reasons for EE being under-valued, and these include: embryonic markets, information (provision and lack of trust), misaligned financial incentives, and perception barriers. These are often inter-related, and contribute to reduced investment in EE in the UK.

- Embryonic markets: While there are examples of companies that specialise in the improvement of energy performance in housing and industry, the UK market remains underdeveloped, especially when compared to the United States. EE product and services companies could have much greater penetration in the wider commercial, industrial and public sectors given the benefits they offer. In the absence of a developed market, there is relatively little expertise on either the demand or supply side for EE investments. This constrains the development of financial products and leads to higher transaction costs.
- Information: One of the key characteristics of the embryonic market is that there is a lack of access to trusted and appropriate information. Where information is available, it is often generic, and not tailored to specific circumstances, meaning that potential investors are not in a position to assess the benefits of an EE investment. Financing of EE projects can be undermined by the absence of standardised monitoring and verification processes, meaning that the benefits of EE investments are not trusted. In the absence of clear, trusted information, many individuals may not prioritise EE investments. Thus, in addition to providing financial means, public authorities have an interest in raising awareness of the savings potential of EE measures, and in providing reliable information about available opportunities to the public.
- Misaligned financial incentives: It is not always the case that the persons responsible for making EE improvements benefit from their actions. This happens at a broader level when wider benefits such as security of supply, or emission reductions, are not directly felt by those making EE investments. Therefore, EE investments are not prioritised as they might otherwise be. Solutions have to be found to ensure that the one who pays is also amongst the ones who save. This is particularly a challenge in the real estate sector where there is an ongoing conflict between the owner/landlord and the tenant when considering potential EE investments and benefits.
- Undervaluing energy efficiency: EE changes may involve significant disruption (also referred to as hassle costs in this Study) for those carrying out the investment, which increases the costs of the investment, e.g. disruption caused by building works or disruption to production lines. EE improvements may not be seen as strategic for a company and therefore not prioritised beyond any demonstration projects done for Corporate Sustainable Responsibility or marketing reasons. For example, outside the energy intensive industry sectors, energy bills represent only a small proportion of business costs. If the relative gain is small, then the hassle costs can act as a significant barrier, especially if there is uncertainty around the benefits of the investment. While hassle costs are not a market failure, they compound the impact of other behavioural barriers, reducing investment in EE. This again makes the case that there is a market potential for public sector intervention to stimulate an increase in project take-up. If public and private entities perceive large hassle costs but would be able to outsource the process of carrying out EE measures, and are guaranteed savings that justify the financial outlay, one would think that most CFOs could be convinced.

In order to assess the main opportunities and barriers in financing EE projects in public buildings, the major market players have been interviewed. The following list summarises the findings from discussions with private and public fund managers, private and public lenders, ESCOs and technical advisors working in the EE sector in the UK and Europe for Public Sector Entities ("PSE"):

• **Project origination and Technical Assistance**: The up-front cost for bidding (audit phase) is high and discourages ESCOs from bidding; the project structuring time is particularly long in PSE; the procurement process is rather complicated (i.e. OJEU issues).

- The PFI interaction: in the UK a number of potential sites are under Private Finance Initiative ("PFI") contracts and this adds further complexity.
- Eligible costs: most EE measures form part of a broader capital expenditure programme (refurbishments, etc.). This means that PSE need to negotiate two different loans: (1) first, identify the EE element of the capital expenditure and receive finance for it (i.e. a loan from a UDF) at a competitive rate; then, (2) finance the remaining part of the capital expenditure through a commercial bank loan.
- **Corporate lending:** most EE projects are financed through corporate lending while there is limited use of project finance (limited recourse finance).
- **Pricing** of the loan provided via a UDF or commercial loans is currently in excess of prudential borrowing costs for the NHS and Local Authority sectors.
- Credit rating of SME ESCOs: the performance guarantees provided by SME ESCOs are not backed by a strong credit rating.

d) Guarantee structure proposed

The suggested FG product would partially reinsure the energy savings guarantee (ESG) provided by an ESCO SME. More specifically, the FG would reinsure only a portion of the ESG in order to leave some of the risk with the ESCO. In our example, we have assumed that the FG would reinsure the ESG for 80% of the value, leaving the remaining 20% with the ESCO. Furthermore, the first loss guarantee would remain with the ESCO up to an amount equal to the non-reinsured value (20% in our example). This structure would relieve some of the burden on the ESCO balance sheet but at the same time keep the ESCO focused on the project results.

Guarantee characteristics		
Maturity	10 years	
% of ESG to be covered	Up to 100%	
Guaranteed Percentage	80%	
Payment of premium	Yearly in arrears	
Maximum aggregate liability	TBD but equivalent to the EPG outstanding.	
Risk sharing	Second Loss (80:20)	
Premium rate	TBD	

The FG would be agreed with the ESCO and the investors. Once triggered it would be channelled either to the lenders and investors or to the SPV (if there is one) or the Health Unit. The structure is described in the two schematics below (one based on a limited recourse structure with an SPV, and one without):

Figure 1

SPV option (Limited recourse financing)

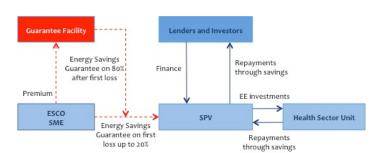
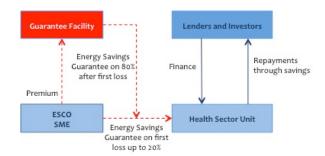


Figure 2

Corporate Finance option



e) FG fund structure and optimisation

The FG facility would have to be a new guarantee fund with funds allocated to:

- 1. TA to support PSE in structuring EE projects; and
- 2. FG to SME ESCOs for EE projects in public buildings using EPG.

The benefits of such an approach are that the FG is able to enhance the strength of the EPG, thereby reducing the risks associated with the investment, and the TA component supports the project origination process and optimises the financial structuring. The result is that the lender is able and willing to lend to the ESCO due to its enhanced credit status, and the SME is able to enter the ESCO market due to the strength of the EPG.

This Study assumes a FG facility that has the following characteristics: dedicated only to SME ESCOs providing EPG with a project size below EUR7.5m. These characteristics are based on the current UK market and on interviews conducted with market participants.

Element	Proposed solution	
Procurement	New Guarantee Fund	
Geographical coverage	National or possibly regional	
Focus	Dedicated exclusively to FG products for EE projects, in particular for SMEs	
Capital requirements	TBD	
Pricing	 Arrangement Fee to the FG fund manager Remuneration of capital requirements Risk premium 	
Funding of FG	From EU funds but with the aim of attracting co investment and co-financing	
Contribution mechanism	Funds allocated before project identification and based on an indicative pipeline. Funds allocated also to TA to Health Units to support project origination and structuring	

A key advantage of setting up the facility at the national level is that a larger fund will provide economies of scale and will result in specialisation with respect to risk assessment, pricing methodologies, and State aid approvals or exemptions in a niche market. The national scale would allow critical mass and therefore make it easier to attract specialist co-investors who understand this specific market. Such a set-up could also be attractive to co- and reinsurers. It is also possible to focus the fund at the regional level but the risk is that there would be duplication of efforts in a number of areas.

Case study 3: Urban regeneration, a large-scale project in Southern Europe

a) Project description and similarities to other sub-sectors

The case study refers to a typical large-scale urban regeneration project in Italy, which would be developed in several phases and, for the purpose of this Study, would include a number of components: land decontamination; urban parks; urban development with upgrading of roads and buildings; development of common interest areas (sports and leisure facilities linked to the adjacent school) and development of new residential and commercial buildings. The works would be financed through various sources of finance and in different tranches.

In this case, and unlike the two previous case studies where one might use a traditional SPV structure there would be a public SPV made up of the municipality, regional and provincial governments, and set up for a specific number of years. Some of the public components would be handed back to the municipality or other competent authorities for management and maintenance purposes. Commercial banks would therefore be lending directly, or via a senior lender in some cases (in which case the local commercial banks would act as intermediary banks), to an entity owned by public authorities.

b) Project impact

This particular project would enable the city to recover 330 acres of land for the use of its citizens and decontaminate the soil, which is heavily polluted by former industrial activities. The restoring of degraded soils is one of the two guiding principles of the EU Thematic Strategy for Soil Protection.

The project is a lighthouse project designed to revitalise the economic and social activity in the Bagnoli area of Naples overall. Individual project components aim to maximise the EE of the buildings and the infrastructure and to serve as an example of best practice in this field. For example, the Urban Park will be zero-energy as a result of the installation of photovoltaic solar panels.

The development of the site will also include the construction of a pneumatic waste management system that will enable the handling of waste into four different categories: organic, paper, plastic/aluminium/glass, and residual. In addition to the direct benefits arising from the potential increase in recycling (it is expected to recover, recycle and reuse around 65% of the waste generated in the area), the new system may help to prevent waste management problems, which have been an important issue in this area during the last two years.

c) Market failure assessment

A number of infrastructure projects in the south of Italy are unable to proceed because of the lack of debt finance and poor project preparation. Lenders view the project risks as too high to provide the required maturities or loan approvals. It is important to keep in mind that a regeneration project always includes multiple types of assets (land, infrastructure, properties, industries, etc.) with different kinds of risks and return profiles.

These projects attract different kinds of lenders and therefore require either a group of senior and intermediary banks or a club deal of banks (pool). In addition, lenders are unwilling to provide limited recourse (or project finance) loans but have to provide a corporate finance type of debt with a mix of underlying assets. This makes the financing even more difficult in the current times of austerity.

The supply of debt finance has been affected by the ongoing financial crisis. The European Central Bank ("ECB") has responded to the lack of lending supply mainly through the Longer-term Refinance Operation ("LTRO"). The programme's stated aim is to maintain a cushion of liquidity for banks holding illiquid assets. Some of the financing provided through the LTRO has been used by banks to purchase the country's sovereign bonds. Thus, at a time when banks have been hit hard since the credit squeeze of 2008, they have stayed away from project financing of the type described in this case study and have preferred to work with ECB to secure the liquidity cushion.



In order to assess market failures in the Italian urban regeneration sector, discussions have been undertaken with a number of market players: private and public fund managers, lenders, consultants and advisors. These discussions have identified the following bottlenecks in the sector:

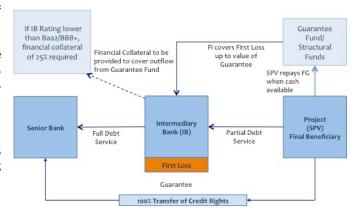
- Regulations: Project components have different risk reward profiles, so projects need to be structured with care in
 order to put in place the appropriate finance for each of the components. Eligibility regulations with regards to
 project costs mean that some capital cost items need to be carved out of the loan provided by the FI, i.e. that a
 loan funded by ESI Funds has to cover eligible components under the applicable ESI Fund regulation and OP
 objectives;
- **Project structuring:** market players identified a lack of support to MAs in structuring bankable projects; whilst funds for TA are available, more coordination is required especially at the national level to make them available to those who most need them;
- Project internal rates of return ("IRR") are incompatible with the Cost of Capital for Commercial Banks
 (especially in the Convergence regions). Furthermore, there is a lack of bank finance available for infrastructure
 and urban regeneration projects in the current market. Energy projects appear to be the only ones that can raise
 financing as they are supported by more certain and predictable cash flows;
- Lack of understanding by MAs and local implementing agencies of the funding options available. There is a need for targeted TA to train key stakeholders on funding opportunities to unblock infrastructure funding.

d) Guarantee structure proposed

The FG would potentially provide two types of cover:

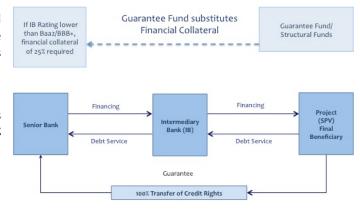
In the first instance, the FG provides cover in the event of non-payment. If the project is unable to repay the loan, the FG allows the intermediary bank to:

- Repay the loan to the senior lender; or
- Replace the guarantee given by the ESI Funds with other financial collateral, and use the 25% guarantee as a "first loss" for its loan.



In the second case, the FG replaces the financial collateral required by the senior lender. If the project is unable to repay the loan, the FG allows the intermediary bank to:

- Repay the loan to the senior lender; or
- Replace the guarantee given by the ESI Funds with other financial collateral, and use the 25% guarantee as a "first loss" for its loan.



In both cases provided in the illustrations above, the guarantee would be in place for a period of up to 16 years (to match the tenor of the loan). One might want to consider adding a couple years to serve as a cushion in the event that there are any delays or debt rescheduling in the future. The guarantee can always be cancelled earlier if such a provision has been anticipated in the insurance contract.

It should be noted that whilst the table on the right suggests that the payment of premium be made every six months in arrears, it might make more sense for this type of project (given the size and the risks compared to the two previous case studies) to have the premium paid upfront as would be in the case in the private market. This removes some uncertainty with respect to the ability to pay premium in the future, and

Guarantee characteristics		
Maturity	16 years	
% of debt to be covered	25%	
Guaranteed percentage	100% or a lesser amount	
Payment of premium	Six month instalments in arrears	
Maximum aggregate liability	TBD depending on amount of debt covered	
Risk sharing	First loss	
Premium rate	TBD	

the FG manager can invest that income from the beginning of the guarantee effectiveness.

e) FG fund structure and optimisation

The FG Fund could be set up at the national or regional level. Furthermore the FG Fund could be dedicated only to FGs

Element	Proposed solution	
Procurement	New FG Fund or extension of Campania HF	
Geographical coverage	National coverage or dedicated to the Convergence region as per Regional Aid Map	
Focus	Dedicated exclusively to FG products	
Capital requirements	To be defined: 75% of guarantee value in first years of operation, then decreasing	
Pricing	 Arrangement Fee to the FG fund manager Remuneration of capital requirements Risk premium 	
Funding	From EU funds but with the aim of attracting co-investment and co-financing	
Contribution mechanism	Funds allocated before project identification and based on an indicative pipeline Funds allocated for TA	

or could provide other products such as equity and debt.

In contrast with the previous case studies, this particular case study has considered a far larger project, which will inevitably benefit from various funding sources (public and private, including grants to address the non-revenue generating components). There is no shortage of complex projects such as this one, whether in Italy or other countries, especially when it comes to decontamination of previous industrial sites and conversion into a new urban area. The question is whether a FI is able to facilitate the implementation of the project or not.

What the study has shown, and this has been

repeated numerous times by the various people interviewed during the process, is that successful implementation foremost relies on the quality of the project design and preparation; finance comes at a later stage. There are numerous funds and budgets available to finance the TA needed to bring a project from the concept stage to one where it is deemed bankable. This requires close coordination with the financiers and a transparent procurement of TA services. Further training and education are needed to promote a more results-oriented management of existing TA funds. One solution might be to pool the various sources of TA at the national level (in order to avoid duplication, waste, non-usage) and have a proper communication strategy for the benefit of local authorities. The key to unlocking many projects such as the one discussed in this case study is to first ensure that they are properly structured, such that they will be able to attract a mix of public and private sources of finances and not only rely on grants and/or public sector finance.

It is therefore suggested that TA must first be put in place to assist local authorities finalise the projects and take them to the stage where they can be financed. During that process, on-going discussions with sources of finance must continuously take place to ensure that the appropriate structures are put in place. Otherwise, a lot of effort and time will be wasted devising projects, which will never 'sell' in the market. As part of those discussions with sources of finance, it will become clearer what risk mitigation measures (including guarantees) need to be in place to reach a successful financial closing.

2.3. Added value of guarantees

The three case studies (based on different market segments) have demonstrated the potential added value of guarantees, especially when it comes to enabling loans and complementing TA. It is important to note that Guarantees are not designed to be the panacea for all the projects that are currently blocked. However, the ability to provide credit enhancements using SF, at a time when public sector budgets are constrained, is seen as a realistic opportunity to realise some of these projects. As shown by the case studies, these can be projects that further open the EE sector to SMEs, projects that have a very strong environmental impact, or larger projects that can revitalise a region.

The expected leveraging effect and revolving nature of a guarantee structure are among the main appeals to MAs for implementing such a FI. The economic use of FGs, that ultimately enable investment volumes in excess of the notional amount of ESI Funds used, is attractive. Other advantages of FIs often put forward are that they can: (i) supply sustainable funding on market-friendly terms; (ii) expand the available financing options and associated expertise of MAs; and (iii) provide greater upfront financing for investment projects as compared to grants.

Considering the JESSICA architecture, one can think of a number of options with respect to the use of guarantees as documented above. One of the key considerations for beneficiaries of these guarantees will be related to how they

Assess the credit risk of the guarantor against sovereign risk, leverage of the FG fund, and potential counterguarantee

assess the credit risk of the guarantor. Once the funds have been transferred to the HF or a specific guarantee UDF, the guarantees are backed by capital within that UDF or HF structure. The credit risk is likely to be that of the sovereign behind the MA, assuming, of course, (as described in previous sections) that the capital in the HF is leveraged by a certain amount. This is the same view/approach taken by the European Investment Fund ("EIF"). However, one needs to distinguish between the credit risk of the party administering the funds, which may be the MA directly or potentially a financial counterpart who acts as a custodian on behalf of the MA and the risk that ESI Funds as such are not available to back the guarantee for the FI as such. The latter is in practice negligible since the ESI Funds are (i) paid in into the FI (in contrast to a sovereign guarantee, which is only a contingent claim and not paid in) and (ii) even in

cases where such payments are phased, they are backed by all EU MS and the non-availability of such funding is negligible if eligibility requirements are fulfilled.

If the guarantee facility issues guarantees with a 1:1.25 ratio (i.e. EUR1.00 of guarantee for EUR1.25 of capital), one might argue for a AAA equivalent rating since the funds are specifically earmarked from the ESI Funds grants; however that would be a very inefficient use of the capital and would severely restrict the potential for leverage. If, on the other hand, the guarantor issues guarantees with a 1:4 ratio for example (i.e. EUR 4.00 of guarantees for EUR1.00 of capital), there will be greater leverage but the credit rating will likely be no higher than the sovereign. That may, especially for transactions at the municipal or sub-sovereign level, constitute a risk that is difficult for some to accept and, as is the case with EIF guarantees in the context of JEREMIE, which is indeed the view taken by the potential beneficiaries of guarantees. A 'foreign' bank may take a different view with respect to the value of the guarantee, as it will impact, amongst other things, its risk capital.

The key to attracting significant urban investment on acceptable terms is predictability. Investors consistently rank factors such as political stability, strong legal system and reliable recourse, independent tariff regulatory bodies, predictable government institutions as their primary concerns in investing in a country. The importance of these factors exceeds the growth rate of the economy, exchange rate stability, availability of government guarantees, and even the cost of borrowing.



The need for guarantees for JESSICA type projects is strengthened by the fact that many agencies that currently provide guarantees may not necessarily address the needs of investors in EU27. Agencies like the Multilateral

Investment Guarantee Agency ("MIGA") operate in "developing countries" (as defined by the World Bank Group (WBG)) and, although this may include countries in the EU, the Agency covers political risks and therefore may not address the risks that investors and lenders need covered. For example, MIGA's breach of contract coverage (which could protect a lender in the event of a defaulted payment because of government breaches of contractual obligations) would require the insured to go through an arbitration procedure to obtain an award that can be enforced. Whilst the WB might be able to operate in some parts of the EU, its guarantees would require counter-indemnity from

the host government. Finally, only a handful of private insurers would be able to provide non-payment cover (made all the more difficult at the sub-sovereign level), and monolines have effectively been shut out of the market, although they are trying to come back (see section 1).

In the unlikely event of litigation, to what extent should Governments be involved?

JESSICA value added: filling the market gap

In the current market, the long list of banks that traditionally played an important role in PPPs, infrastructure deals and JESSICA type projects are, in many cases, no longer around or have had their operations severely curtailed. This problem is exacerbated with Basel III requirements on financial institutions.

Under Basel III, a new definition of capital is introduced to increase the quality, consistency and transparency of the bank's capital base. It also requires higher capital ratios and strengthens the requirements for the management and capitalization of counterparty credit risk. It includes an additional capital charge for possible losses associated with the deterioration in the credit-worthiness of counterparties or increased risk weights on exposures to large financial institutions.

In this context, UDFs established within the JESSICA framework have a role to play in order to fill a market gap that exists today. Guarantee structures and risk sharing structures can help mobilise commercial financing (including local commercial banks for example) to fund regional needs, i.e. projects that address both the socio-economic policy goals

of the regions as well as the financial return requirements of investors. Local financial institutions in some countries may not be able to lend for more than 5-7 years.

The FG would be tailored to mitigate risks according to specific needs of the different parties involved

One possible use for the guarantee would be to extend maturities. The key is to ensure that the benefits of using guarantees are made clear in order to promote leverage as opposed to creating competition with grant financing.

Many developers have a good understanding of local market conditions and the risks associated with municipal/regional urban projects. They may also have a higher tolerance for risk than an international investor, due to the potential information

advantage and existing regional engagement. While there may be risks at every stage of the project life cycle (development, construction or operation), most occur at the early (seed capital) stage, which the local investor is unable to address.

For local authorities, a FG adds comfort due to the fact that the project has been looked at by specialists, and that a percentage of the investment notional could actually result in the unblocking of projects without having to tap into the city's or region's balance sheet.

Finally, for the national government, the regional authorities, or the municipality (or a combination of some or all of them), the availability of additional financial products in the form of guarantees (in addition to equity and debt) may facilitate planning and the ability to roll out the various phases of the urban plan approved at the MA level.

The modelling exercise has shown similar ranges of return in the three case studies from the Guarantor perspective. The value added of the JESSICA initiative is further demonstrated through the return provided to the fund, which enables the recycling of public money and re-investment into more projects. The analysis shows that in addition to the non-financial value added demonstrated earlier, the FG offers a reasonable return and provides the fund with an interesting return that will increase the funding capacity over time.

3. Implementing financial guarantees in 2014-2020

In the light of the expected change in the regulations for the next programming period, this section aims to give an overview of the process that should be applied to analyse projects before devising a FG using ESI Funds.

3.1. Eligibility of costs

The first question relates to the eligibility of costs incurred by the project, against the applicable policies and objectives that govern the use of ESI Funds. While the full investment cost does not need to be eligible, there has to be a sufficient portion of the costs covering the total amount of ESI Funds committed plus the cofinancing element. This means, for example, that if a FG of EUR20 m is issued to cover any kind of risk, using EUR10 m of ESI Funds and the same amount of cofinancing⁸, there should be at least EUR20 m of eligible costs in the project.

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What costs are eligible?

This question needs be answered on a project-by-project basis, primarily based on the respective OPs as well as other frameworks, contracts or policies that might be applicable. In the programming period 2014-2020, there are 11 thematic objectives that could authorise the use of ESI Funds to support FIs. The approach proposed by the EC is rather flexible; costs can be covered by multiple objectives and the same project can obtain funding from various resources (different OPs, priority axes, different ESI Funds). These objectives are listed below:

- 1. Strengthening research, technological development and innovation.
- 2. Enhancing access to, and use and quality of, information and communication technologies.
- 3. Enhancing the competitiveness of small and medium-sized enterprises, the agricultural sector and the fisheries and aquaculture sector.
- 4. Supporting the shift towards a low-carbon economy in all sectors.
- 5. Promoting climate change adaptation, risk prevention and management.
- 6. Protecting the environment and promoting resource efficiency.
- 7. Promoting sustainable transport and removing bottlenecks in key network infrastructures.
- 8. Promoting employment and supporting labour mobility.
- 9. Promoting social inclusion and combating poverty.
- 10. Investing in education, skills and lifelong learning.
- 11. Institutional capacity and efficient public administration.

It is assumed that total eligible project expenditures would be the sum of each eligible cost under one or more of the objectives listed above. A detailed justification would be required, but the compliance audit process is well known to many MAs, and funds for TA are always available.

FIs can be vested with funds from any of the five ESI Funds. The eligibility of costs could be analysed accordingly. The payment certification of these ESI Funds is described below.



⁸ Amended Proposal article 110-5, « The maximum co-financing rate under paragraph 3 at the level of a priority axis shall be increased by ten percentage points, where the whole of a priority axis is delivered through financial instruments, or through community-led local development ».

⁹ Amended Proposal article 9.



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3.2. Payment certification

The eligible expenditure and payment certification is currently defined by the Commission Proposal (recitals, 26-27), which states:

- "The amount of the resources paid at any time from the ESI Funds to financial instruments should correspond to the amount necessary to implement planned investments and payments to final recipients, including management costs and fees, determined on the basis of business plans and cash-flow forecasts for a predefined period which should not exceed two years."
- "It is necessary to lay down specific rules regarding the amounts to be accepted as eligible expenditure at closure, to ensure that the amounts, including the management costs and fees, paid from the ESI Funds to financial instruments are effectively used for investments and payments to final recipients. It is also necessary to lay down specific rules regarding the reuse of resources attributable to the support from the ESI Funds, including the use of legacy resources after the closure of the programmes."

One could question, in the case of FGs, how eligible expenditures are calculated at closure. Article 36 of the Commission Proposal states that "at closure of a programme, the eligible expenditure of the FI shall be the total amount effectively paid or, in the case of guarantee funds committed, corresponding to resources committed for guarantee contracts, whether outstanding or already come to maturity, in order to honour possible guarantee calls for losses, calculated according to a prudent ex ante risk assessment, covering a multiple amount of underlying new loans or other risk-bearing instruments for new investments in final recipients."

It is therefore the committed amount of the FG that accounts for the eligible cost.

Phased contribution

The Presidency compromise on financial instruments of June 2012 proposes that the payment expenditure (or fund disbursements) should be phased. Subsequent contributions would be subject to the actual spending of each previous contribution. The mechanism would work as follows:

- 1st contribution: 25% maximum of the total programme contribution to FIs.
- 2nd contribution: 25% maximum subject to the spending of 60% of the 1st contribution.
- 3rd contribution and following: 25% maximum subject to the spending of 85% of previous contribution.

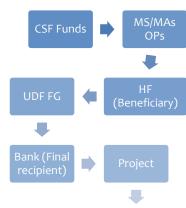
This mechanism is designed to avoid having significant funds available in FIs with no or few actual disbursements made to projects.

Fund flow

The flow of funds will differ markedly for guarantees when compared to loan instruments; this is a point that needs to be taken into account (especially in the next programming period 2014-2020) when deciding whether or not the funds flow to the MA in tranches (as milestones are reached) or upfront. If an UDF is set up with a dedicated guarantee facility, the final recipient will want to know that the facility has the ability to pay out claims, *i.e.* that it has the necessary reserves. Assuming the contributions to the HF or UDF are provided in various phases, starting with 25% of the amount, the HF or the UDF will need to institute strict rules that put a cap on the amount of guarantees that can be issued each year (this is the approach taken under the JEREMIE initiative).

When that cap is reached (be it mid-year or later during that same year), the issuance of new guarantees is put on hold until the new contribution is made. It is also important to keep in mind that such contributions will likely be linked to milestones (performance based) so that if no guarantees have been issued in any given one-year period, the next contribution might be placed on hold.

In the simplified structure, an MA sets up a HF, which in turn sets up an UDF that has the ability to offer guarantees. Once the funds are transferred to the UDF,



the latter then provides guarantees on a loan made by a commercial bank to a project. It should be noted, however, that in many cases (especially MS with previous JESSICA experience) the MA will likely set up an UDF which issues guarantees without the need for a HF, thereby removing one layer and simplifying the process.

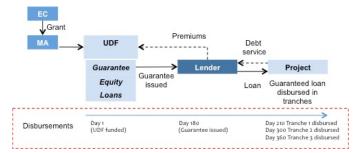
In the above example, the following sequence of events takes place:

- a) Contribution from ESI Funds OPs and grant to MA.
- b) Transfer of funds to HF (or UDF if there is no HF).
- c) Transfer of funds to UDF, which issues guarantees, loans and equity.
- d) UDF issues a guarantee to a commercial bank for a loan to a project.
- e) Loan disbursed in one or several tranches (when/if "conditions precedent" are met).

As a result, if there are no events of default, and no triggers on the guarantee, the bank pays premium to the UDF for

the life of the guarantee, assuming the premium payment structure is based on payments in instalments; otherwise it may have been paid up front.

> The lender receives the guarantee on day 1 but may make the final disbursement under the loan agreement on day 360 after signing the loan agreement and the issuance of the guarantee by the UDF.



- It is therefore possible that, unless the UDF is set up with a ready pipeline of projects, (i) the funds may lay dormant in the UDF whilst projects are identified and approved by internal credit committee, and (ii) the funds may be disbursed by the lender (the beneficiary of the guarantee) over time. However, the Presidency Compromise on financial instruments of June 2012 suggests that request for payment expenditures (or fund disbursements) should be phased in order to avoid having significant funds available in FIs with no or few actual disbursements made to projects.
- The reporting requirements back to the MA need to take this into account. For the UDF it will be important to have that capital as it signals that the fund has the financial strength to issue guarantees as and when they are needed. The only 'constraint' will be the need to properly monitor the cap on guarantees that can be issued based on the paid-in capital, or contributions, and the leverage that has been agreed (capital to guarantees issued). An analysis of the current regulation proposal will have to be reviewed once the regulation is in place.

3.3. State aid rules

General principles of State aid 10

State aid rules apply only to measures that satisfy all of the criteria listed in Article 107 of the Treaty¹¹, and in particular:

- a) Transfer of State resources including national, regional or local authorities, public banks and foundations. Financial transfers that constitute aid can take many forms: not just grants or interest rate rebates, but also loan guarantees, accelerated depreciation allowances, capital injections, tax exemptions, etc.
- b) Economic advantage: The aid should constitute an economic advantage that the undertaking would not have received in the normal course of business.
- c) Selectivity: State aid must be selective and thus affect the balance between certain firms and their competitors.
- d) Effect on competition and trade: Aid must have a potential effect on competition and trade between MS.

In some cases, State aid is considered to be acceptable. The assessment of aid compatibility is essentially a balancing of the positive effects of aid (in terms of contributing to the achievement of a well-defined objective of common interest) and its negative effects (namely the resulting distortion of competition and trade) (the "balancing test"). In order for a type of support to be declared compatible, aid must be necessary and proportionate to achieve a particular objective of common interest. There are four levels of methodology used in assessing aid compatibility:

- 1. No aid De minimis (under a certain amount)
- 2. General Block Exemption Regulation ("GBER")
- 3. Standard assessment
- 4. Detailed assessment

Where the aid measure satisfies all the conditions laid down in the 'de minimis' exemption, there is no requirement to submit any notification to the EC (although MS are obliged to monitor such aid in line with the 'de minimis' Regulation).

Individual aid measures or aid schemes that satisfy all the conditions laid down in the GBER adopted by the EC do not need to be notified to the EC. The MS is instead required to submit to the EC a summary description of the aid measure within 20 working days following the implementation of the measure. For measures exempted from notification under the GBER, the MS also have an obligation to publish on the Internet the full text of such measure and keep it posted as long as the measure is in effect.

Specific principles for FG, based on the EC "Notice" 12

The Notice applies to individual guarantees as well as guarantee schemes. It applies to all sectors of the economy, including agriculture, fisheries and transport, without prejudice to specific rules relating to guarantees in the sectors concerned. However the Notice does not apply to export credit guarantees. The Notice sets rules on when a guarantee is considered as market-conform and therefore does not constitute aid. It also provides for the assessment of guarantees with an aid element.

Guarantees are usually associated with a loan or other financial obligation to be contracted by a borrower with a lender. The same rules also apply to other types of guarantees where a similar transfer of risk takes place (e.g. equity investments). The Notice sets out rules for clear and transparent methodologies for the calculation of the aid element in a given guarantee or in a guarantee scheme. Simplified rules for SMEs are introduced in order to help to address the particular difficulties of SMEs with access to finance.

¹² "Commission Notice on the application of Articles 87 and 88 of the EC Treaty to State aid in the form of guarantees" (Official Journal No C 155, 20.6.2008, p. 10-22 and corrigendum to p. 15 in Official Journal No C 244, 25.9.2008, p. 32).



¹⁰ Extract from EC Directorate-General for Competition - Vademecum - Community law on State aid - 30 September 2008.

¹¹ Treaty on the Functioning of the European Union

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2012:326:0047:0200:EN:PDF

Conditions ruling out the existence of State aid (extract from the Notice)

Guarantees that meet the certain conditions described in the Notice are considered not to bring an advantage to the beneficiary, and hence, do not constitute State aid. The assessment for the State aid element in the guarantee is based on the Market Economy Investor Principle as it relies on proper risk assessment through a rating. The rating does not have to be set by an international agency but can be carried out by the bank of the beneficiary.

In order to rule out the existence of aid, the guarantee has to satisfy the following criteria for individual guarantees:

- The borrower is not a company in difficulty (see Factsheet 5. NB: New SMEs are not considered as companies in difficulties for the purposes of the application of this Notice);
- FGs can be clearly linked to a specific financial transaction and limited in time and amount;
- Maximum coverage 80% of the outstanding loan (or other financial obligation);
- Proportionality in repayments and decrease of guarantee, and in sharing losses;
- Losses have to be sustained proportionally and in the same way by the lender and the guarantor. In the same manner, net recoveries (i.e. revenues excluding costs for claim handling) generated from the recovery of the debt from the securities given by the borrower have to reduce proportionally the losses borne by the lender and the guarantor. First-loss guarantees, where losses are first attributed to the guarantor and only then to the lender, will be regarded as possibly involving aid;
- Market-oriented price paid for the guarantee (taking into account specificities of the transaction); in order to be viewed as being in line with market prices, the premiums charged have to cover the normal risks associated with granting the guarantee, the administrative costs of the scheme, and a yearly remuneration of an adequate capital, even if the latter is not at all or only partially constituted.

Guarantees with an aid element (extract from the Notice)

Where an individual guarantee or a guarantee scheme does not comply with the market economy investor principle, it is deemed to include State aid. The State aid element therefore needs to be quantified in order to check whether the aid may be found compatible under a specific State aid exemption. As a matter of principle, the State aid element will be deemed to be the difference between the appropriate market price of the guarantee provided individually or through a scheme and the actual price paid for that measure.

The resulting yearly cash grant equivalents should be discounted to their present value using the published EC reference rate, then added up to obtain the total grant equivalent.

When calculating the aid element in a guarantee, the Commission will devote special attention to the following elements:

- a) Whether in the case of individual guarantees the borrower is in financial difficulty. In the case of guarantee schemes, the eligibility criteria of the scheme provide for exclusion of such undertakings. The Commission notes that for companies in difficulty, a market guarantor, if any, would, at the time the guarantee is granted charge a high premium given the expected rate of default. If the likelihood that the borrower will not be able to repay the loan becomes particularly high, this market rate may not exist and in exceptional circumstances the aid element of the guarantee may turn out to be as high as the amount effectively covered by that guarantee;
- b) Whether the extent of each guarantee can be properly measured when it is granted. This means that the guarantees must be linked to a specific financial transaction, for a fixed maximum amount and limited in time. In this connection the Commission considers in principle that unlimited guarantees are incompatible with Article 87 of the Treaty;
- c) Whether the guarantee covers more than 80 % of each outstanding loan or other financial obligation. In order to ensure that the lender has a real incentive to properly assess, secure and minimise the risk arising from the lending operation, and in particular to assess properly the borrower's creditworthiness, the Commission considers that a percentage of at least 20 % not covered by a State guarantee should be carried by the lender to properly secure its loans and to minimise the risk associated with the transaction. The Commission will therefore, in general, examine more thoroughly any guarantee or guarantee scheme covering the entirety (or

nearly the entirety) of a financial transaction except if a MS duly justifies it, for instance, by the specific nature of the transaction;

d) Whether the specific characteristics of the guarantee and loan (or other financial obligation) have been taken into account when determining the market premium of the guarantee, from which the aid element is calculated by comparing it with the premium actually paid.

For an individual guarantee the cash grant equivalent of a guarantee should be calculated as the difference between the market price of the guarantee and the price actually paid.

Where the market does not provide guarantees for the type of transaction concerned, no market price for the guarantee is available. In that case, the aid element should be calculated in the same way as the grant equivalent of a soft loan, namely as the difference between the specific market interest rate this company would have borne without the guarantee and the interest rate obtained by means of the State guarantee after any premiums paid have been taken into account.

If there is no market interest rate and if the MS wishes to use the reference rate as a proxy, the Commission stresses that the conditions laid down in the communication on reference rates ¹³ are valid to calculate the aid intensity of an individual guarantee. This means that due attention must be paid to the top-up to be added to the base rate in order to take into account the relevant risk profile linked to the operation covered, the undertaking guaranteed and the collaterals provided.

Conclusion: State aid "questionnaire"

On a project-by-project basis, the following questions should be answered to determine whether the FG scheme requires approval by the EC or not (subject to any change in the regulations).

- Does the de minimis apply?
 If the guarantee value is lower than the "de minimis" exemption regulation it can be used.
- 2. Does the General Block Exemption Regulation apply? The State aid Element calculation (difference between the appropriate market price of the guarantee and the actual price paid for that measure) will be applied to the aid ceiling calculation (maximum of eligible costs on which a certain percentage is considered as acceptable).
- 3. If the *de minimis* does not apply, or if according to the regional or national relevant exemption, the amount of the FG that does eventually constitute a State aid is not covered by the ceiling, then a standard or detailed assessment would have to be submitted to the EC for approval.

This simplification is subject to any change in the regulation, local, regional or national policy that would state otherwise, or any other regulation, note, recommendation that would provide additional or different rules or guidance.

⁽http://ec.europa.eu/comm/competition/state_aid/studies_reports/full_report.pdf, see pages 23 and 156-159 of the study), a general reduction of 20 basis points has been taken into account. This reduction corresponds to the difference in margin for a similar risk between a loan and a guarantee in order to take into account the additional costs specifically linked to loans.



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¹³ These safe-harbour premiums are established in line with the margins determined for loans to similarly rated undertakings in the Communication from the Commission on the revision of the method for setting the reference and discount rates (OJ C 14, 19.1.2008, p. 6). Following the study commissioned by the Commission on that topic:

4. Fund structuring for financial guarantees implementation

Making the case for a FI

Article 32 of the CPR stipulates that support from OP resources to a FI shall be based "on an ex-ante assessment which has established evidence of market failures or sub-optimal investment situations, and the estimated level and scope of public investment needs, including types of financial instruments to be supported." According to the Presidency compromise on financial instruments of June 2012¹⁴, the "ex-ante assessment shall include:

- a) An analysis of market failures, suboptimal investment situations, and investment needs for policy areas and Thematic Objectives or investment priorities to be addressed with a view to contribute to the strategy and results of the relevant programmes and to be supported through financial instruments. This analysis shall be based on available best practice methodology.
- b) An assessment of the value added of the financial instruments considered to be supported by the ESI Funds, consistency with other forms of public intervention addressing the same market, possible State aid implications, the proportionality of the envisaged intervention and measures to minimise market distortion.
- c) An estimate of additional public and private resources to be potentially raised by the financial instrument down to the level of the final recipient (expected leverage effect), including as appropriate an assessment of the need for, and level of, preferential remuneration to attract counterpart resources from private investors and/or a description of the mechanisms which will be used to establish the need for, and extent of, such preferential remuneration, such as a competitive or appropriately independent assessment process.
- d) An assessment of lessons learnt from similar instruments and ex ante assessments carried out by the Member State in the past, and how these lessons will be applied going forward.
- e) The proposed investment strategy, including an examination of options for implementation arrangements within the meaning of Article 33, financial products to be offered, final recipients targeted, envisaged combination with grant support as appropriate.
- f) A specification of the expected results and how the financial instrument concerned is expected to contribute to the achievement of the specific objectives and results of the relevant priority or measure including indicators for this contribution.
- g) Provisions allowing for the ex-ante assessment to be reviewed and updated as required during the implementation of any financial instrument which has been implemented based upon such assessment, where during the implementation phase, the managing authority considers that the ex-ante assessment may no longer accurately represent the market conditions existing at the time of implementation."

The ex-ante assessment shall be completed before the MA decides to make programme contributions to a FI and shall be submitted to the Monitoring Committee for information purposes and in accordance with Fund specific rules. Such assessment is a prerequisite for any FI and therefore also the case for the implementation of a FI providing guarantees. Furthermore, for the successful implementation and operation of a UDF providing FGs, three fundamental aspects need to be agreed ex-ante between MAs, key local public institutions and the EC: (i) the structure of the fund, (ii) its investment strategy and (iii) performance monitoring indicators (or KPIs). These aspects aim to create a confident understanding of the functioning of the FI and the FG product.

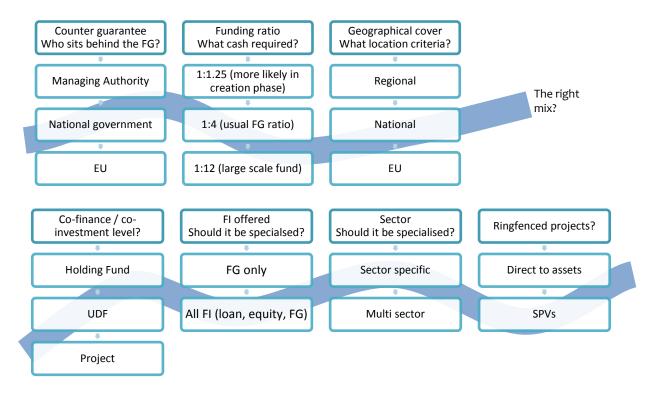
4.1. Suggested structure

This section aims to draw lessons from the three case studies identified above and for which a potential guarantee fund structure has been suggested. Different options should be considered before designing and implementing the FI structure for FG. To that end, the following list highlights the main options available.

¹⁴ http://register.consilium.europa.eu/pdf/en/12/st11/st11027-ado2re01.en12.pdf



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Guidance on options available

Counter Guarantee

As FGs are issued and the portfolio grows, there is the possibility that the issuer of the guarantee will suffer significant losses, in which case the guarantor may not be able to meet the various obligations under the individual guarantees. Such major losses could arise for several reasons: (1) too much risk taken on by the guarantee facility; (2) changes in the rules of the game in a sector (for example changes in feed-in tariffs in the renewable energy sector) which would have an impact on the projects' profitability; and (3) downturn in the economy which might impact municipalities and their ability to honour commitments made to projects.

Any beneficiary (of a guarantee) will therefore want to know (as part of its own due diligence on the creditworthiness of the issuer of the guarantee) who ultimately covers that risk and effectively provides a counter guarantee. Ideally, the largest counter guarantee would be the best. Indeed, this would enable a higher funding ratio, as beneficiaries of the FG will be more confident with the creditworthiness of the fund itself. It is likely that the fund credit rating will be directly related to the counter guarantee credit rating. In some guarantee fund structures, it will be possible to put in

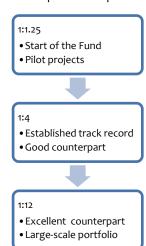
place re-insurance with the private market (this will especially be the case for guarantee funds that offer a good diversification of risk).

In order to create FG funds that fully fulfil their purpose in countries where the creditworthiness has been altered, a FG fund at EU level could be considered. However, this would raise a number of issues related to legal form, investment strategy and governance, management and allocation of fund across the different countries and regions.

In any event, the MA should not have automatic liability in case of UDF failure to meet its commitments. Indeed, the MS should decide if and how any counter guarantee of the UDF can be provided to the final recipient. This should be made clear to all parties upfront when the fund is put in place.

Funding ratio

The higher the ratio is, the larger the number of FG that can be issued and therefore the



larger number of projects that can be guaranteed. However, this ratio will depend on the willingness of beneficiaries to believe that the Fund is able to meet its obligations even though the cash available to pay claims is lower than the liabilities. This then affects the fund's potential deal flow and the granularity of the FG portfolio.

For the fund to be credible, the counter-guarantee would have to be provided by an entity that has a strong credit rating, and/or the fund has a significant risk diversification (i.e. it has issued many FGs that each represent a very low proportion of the total portfolio) and an excellent track record (i.e. after few years of operations, no default has occurred); with the latter demonstrating the fund's ability to invest FGs in bespoke projects that do not result in claims on the guarantees.

The most likely scenario would be subject to the following conditions:

Geographical cover

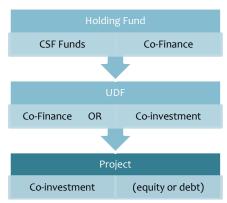
From a creditworthiness perspective, the question is answered in the counter-guarantee point above. From an operational perspective, the pros and cons are summarised below:



Co-investment and Co-financing

It is expected that regulations for the next programming period will allow co-investments and co-financing to be invested at any level: HF, UDF, and project. However, the use of ESI Funds and their co-financing is complex given (i) the strings attached with respect to eligibility of expenditures, (ii) State aid concerns, and (iii) national regulations that apply to ESI Funds and their co-financing (which has to be invested in the same manner as is allowed for ESI Funds).

The term co-investment is used here to include any additional funds that are made available on top of the ESI funds and the necessary national co-financing contribution. For investors with little or no particular link to the projects financed or to the region itself, the motivation is primarily



financial. In this regard, investments into FIs would have to provide a diversifying effect on the investor's portfolio and to offer attractive conditions. These investors could therefore be expected to provide co-investment at the MA level or the FI level to benefit from the investment portfolio and avoid overexposure to a single operation. In contrast, project promoters and other financiers would enter at the FI level or directly at the project level and pursue an interest in individual projects and the development of the respective region. It is important to understand these differing motivations for co-investment when trying to attract additional funding for the MA's investment strategy.

The study suggests that ESI Funds and their co-financing are separated from any additional co-investment to maintain clean audit trails and to best address the different expectations of investor groups. This approach would facilitate the management of a combination of ESI (less flexible) and non-ESI (national or private funds - possibly more flexible) Funds under the applicable regulatory and investment guidelines.

FI offered

The question of whether the UDF should offer different financial products (equity, debt and FG) in a single fund is answered by considering the following pros and cons.

A key consideration would be whether it is necessary, based on the ex-ante assessment and degree of market failure, for ESI Funds to flow directly to the projects or whether a stimulus to lenders and other financiers, e.g.

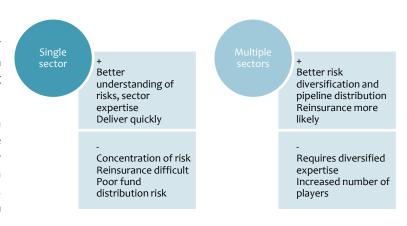
Larger fund size Focus on a single Knowledge of expertise markets and projects More attractive and through equity and reliable for markets debt Lack of interested co-investors in multi Requires more money allocated to products at fund level FG specifically Reduced visibility

through a guarantee, is sufficient to unlock funding to projects. For MAs it may be attractive to deploy a mix of financial products through the same instrument to better address project specificities. A multi-product fund may be better suited as a regional product as it would rely to a lower extent and be able to support local projects in different ways through guarantees, loans and equity. In contrast, a FG only fund may be better suited for a pipeline of homogenous projects with similar risk-return features to make the structure worthwhile. This may require an expansion of the geographic scope beyond the city or region as described above.

Sector

The question of whether the UDF should cover different sectors in a single fund is answered by considering the following pros and cons.

There is an obvious advantage in structuring a sector specialised UDF: the capitalisation of market knowledge, key players and projects, together with technical skills and invaluable expertise. A focused UDF allows it to (i) have a very clear mission, which is well

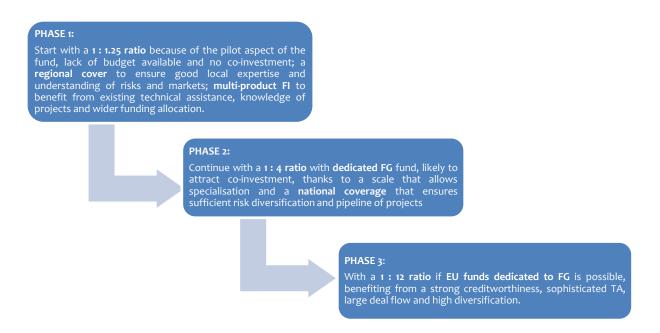


understood by the market and might improve business development for quality projects, (ii) provide a streamlined approach to project underwriting, and (iii) attract a well-known pool of investors and lenders to tap into (both as co-investors in the UDF itself and at the project level). This would ensure sophisticated project design, maximisation of the potential pipeline and implementation success.

However, in cases where the deal flow is not expected to be significant, a sector specialised UDF would be difficult to justify. Sector focused UDFs might also not be practical in countries where JESSICA is implemented by Managing Authorities of smaller regions as opposed to MS where MAs are responsible for larger regional or even national OPs.

Option choice summary and suggested phasing

The options above are likely to be chosen in a different mix based on the maturity of the fund itself, the market and the wider urban development policy. As a result of the market testing, the phases below are suggested to grow the fund that would be implemented.



In the first phase, and in order to sustain capital, any guarantee or financing facility may have to start on a 1:1.25 ratio in respect of paid-in capital. This offers limited leverage only to the extent that other participants may join without guarantees because they take comfort in the fact that the MS/MA is taking part. Additionally, and as seen in the case studies described earlier, a small guarantee may "unlock" a project thereby attracting other investors and lenders with different views on (and tolerance of) risk which further increases the leverage.

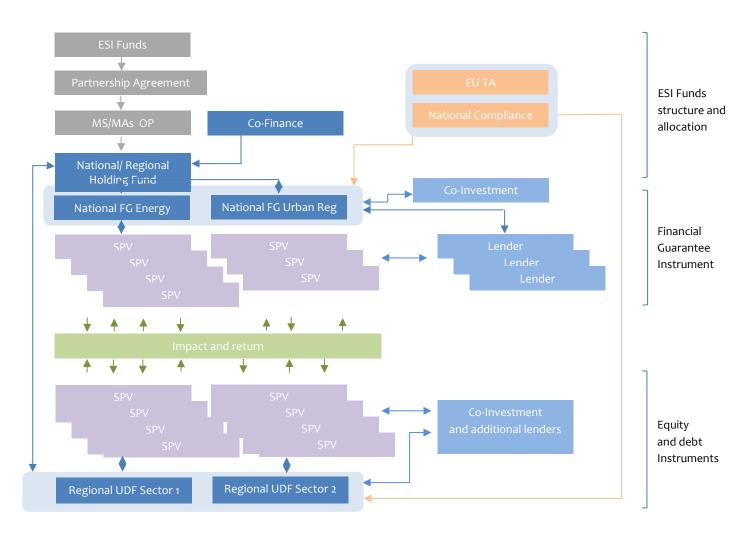
Once the guarantee facility is able to establish a track record with respect to the delivery of the guarantee instruments (but as well with respect to underwriting knowledge, due diligence, risk management, and ability to attract additional co- or and/or re-insurance), the multiplier effect should increase and allow more financial leveraging to occur, in the addition to the leverage described above. Investors will have more confidence as projects succeed and a history of claim payments (small or nil) is established.

Suggested structure

As a result of the different options available above, this Study recommends the following structure, which would combine the benefit of having a specialised national FI dedicated to FG for a specific sector.

Focusing on a strong pipeline, this structure will accelerate implementation by employing highly experienced fund managers, by drawing lessons from each operation and by building on the experience with EU FI. The broad geographic coverage, streamlined administration and the specialised management team lead to economies of scale and increase the attractiveness of the FI for co-investments.

Last but not least, dedicating these sector specific vehicles to specific thematic objectives of the PA and OPs would ease the reporting and therefore the use of SF, which is one more appeal for potential co-investment.



MAs could continue to set up UDFs dedicated to debt and equity instruments and specialised into dedicated sectors at the regional level (subject to the volume of the deal pipeline which has to be significant to justify the establishment of multiple UDFs).

One could imagine that a single HF, centralising the ESI Funds allocated by the MA to FI, could feed these two "groups" of UDFs. The mechanism by which a MA can invest into a fund at national or cross member states level is described hereafter.

This structure is for illustrative purposes and cannot replace any ex-ante assessment that MAs have to perform before taking a decision to set up any FI.

Specificities of a cross-regions financial guarantee fund

When looking at the various types of possible guarantee structures (national, regional, local), there may also be instances where the guarantee structure can be set up across national boundaries. This might be the case where there are several cities close to each other in neighbouring countries with similar issues; but it might also be the case for a set of small countries that may want to realise economies of scale by teaming up under one guarantee facility.

Although limited, there are examples of macro regions. Launched in 2009, for example, the Baltic Sea macro-region brings together a coherent set of territories that want to cooperate in order to find better solutions to the economic and environmental problems facing them. This cooperation has taken the form of a 'macro-regional strategy', designed to coordinate the existing extensive sectorial cooperation and based on four pillars — environment, prosperity, accessibility and security — and an action plan setting out 15 priority areas and 80 flagship projects.

This experience has inspired other projects such as the Danube macro-region, which has taken its first steps, and further projects are envisaged. The institutions concerned, MS, regions and local authorities are working together to define similar frameworks for other European macro-regions that share common traits: same maritime area, same mountain range, same river basin, etc. Macro-regional strategies offer new prospects for territorial cooperation projects supported by cohesion policy. They can assist the broad EU strategies, such as trans-European transport networks or the integrated maritime policy. They can ensure better coordination between regional programmes and the objectives of the Europe 2020 strategy.

Looking at the Baltic Sea example, the implementation of a macro-regional strategy offers many opportunities, principally by providing a reference framework relevant to cohesion policy and encouraging inter-sectorial cooperation in a single services and working area. This framework can steer investment towards more complementarity and can influence the respective priorities of each regional development plan for a European macro-region, ensuring an overview and genuine synergies within an integrated approach. This strategy also ensures greater involvement and better cooperation between the EU's various intervention mechanisms, going beyond the appropriations allocated to cohesion policy. This is particularly the case with the EIB. It also pools the resources of regions and MS through multilevel governance. This represents a 'win-win' strategy for each stakeholder.

If MAs wanted to benefit from a larger FG capacity, combining the best credit rating with the highest leverage, a cross-regions or cross member-states option should be considered. However, the legal form and the governance of such a fund would need to be subject to further investigation. In particular, the payment certification for funds and the ability of the fund to mutualize risks and rewards would need to be documented with sufficient details. At the time of this study and subject to further investigation, the following structure example could be considered:

Six regions would invest ESI Funds in a centrally managed FI, *i.e.* a dedicated FG fund. Because the fund is centrally managed, there would be no requirement for co-financing¹⁵. In the first period, MAs would receive FG in proportion to their investment in the fund, based on an initial ratio of 1:4. Due to payment certification constraints, a strict earmarking of funds needs to be applied: money from one MA needs to be issued as a FG in the same MA. However, when premiums or fees are paid to the fund, and the FG committed decrease as per the amortisation of the loan that is actually guaranteed (phase 2), the financial returns could actually be mutualised. This would allow the fund to offer more flexibility in its FG issuance.

In its phase 2, this structure would potentially offer strengthened capacity and unrivalled efficiency, business driven decision-making, limitation of political impact, and high granularity and risk diversification. This should, in principle, appeal to both co-investments and MAs. It would however raise a number of questions and issues especially around governance and investment strategy that should be addressed and agreed between participating MS or regions exante.

¹⁵ Article 110 of the amended proposal



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4.2. Investment strategy

For the sake of clarity the investment strategy is mentioned after the fund structure organisation in this Study. However, the ex-ante assessment should analyse the implementation of the FI in the reverse order; the market failure assessment will lead to the investment strategy, which in turn will drive the structuring of the FI.

In the context of FGs, this strategy will detail which project type should be sought for FG support, based on the sector, typology, risk, return and impact assessment. The investment strategy of the FI follows the objectives of the OP(s) that contribute ESI Funds allocation to the fund. Within this framework, the investment strategy will be pursued based on the findings of the ex-ante assessment to establish the FI. During the final step, a set of additional selection criteria and defined and agreed upon between the fund manager and the MA to enable the fund manager to identify and prioritise candidate projects for the issuance of FGs.

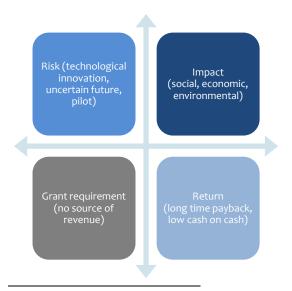


1- Sector and type within market failure

Based on the market failure assessment - but also on the programme's objectives, the coherence with existing support provided by the local authority, the expected outputs and results, the wider contribution to Europe 2020 strategy and strategic environmental assessment performed throughout the ex-ante assessment ¹⁶ - the strategy will set out in which sector the FI will invest (in this case issue FGs).

In the urban domain, key sectors include EE in urban areas, mobility, SME development (providing appropriate premises, such as office or retail space as well as surrounding infrastructure), cultural heritage and tourism as well as deprived area regeneration. The investment strategy will seek to define the expected impact of the FI in each sector, the market absorption capacity, an indicative project pipeline and potential co-financing as well as co-investment.

2- Impact, risk and return assessment



Subject to due diligence and ex-ante assessment by MAs, the following matrix represents a summary of the project assessment that the strategy would prescribe, in order to classify projects, which could benefit from FG support.

Projects that are innovative, developed as pilots, and/or included in a deprived area with uncertain development opportunities, are likely to present risks that the private sector cannot assume and that a FG could unlock. Projects that offer long-term payback periods and low returns or cash on cash would benefit from a FG. This would also be the case for debt available in the market that currently requires short maturities and strict covenants.

¹⁶ See Guidance document on ex-ante evaluation, January 2013



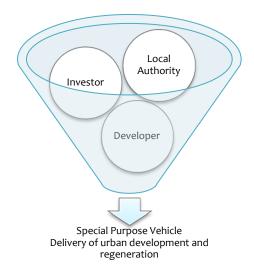
3- Compliance verification

The investment strategy will determine how and at what stage of the selection process an audit is required to confirm the compliance of the project and its costs with the eligibility rules and the different frameworks and regulations available, as well as the conformity of the FG sought with the State aid rules.

4- Fund diversification and disbursement status

Even if the project meets all the above requirements, it would have to be analysed by taking into account the existing and future projects that the fund is financing, supporting or guaranteeing. The fund's management and risk diversification policies will likely require that investments in, or support to, projects that are too large with respect to the total portfolio be avoided. This will also be true for projects that are located in the same area, and projects that have similar components or are subject to the same risk factors.

Additionally, the project funding requirement (or the disbursement expectations with regards to the FG to be provided) should be forecasted together with the fund's business plan and other investments expected or engagements planned, to ensure compatibility of the fund cash flow requirement with both the cash available and the phasing of ESI Funds contribution (see 3.2 payment certification above).



Hence the size of the project and its funding requirement will have a significant impact on both criteria above and should be clearly anticipated by the investment strategy.

While the investment strategy of the FI would have to be agreed between the MA and the fund managers, maximum buy-in from local public bodies and support from private partners through co-financing or co-investment may be essential for the FI to become successful. In this respect, the UK model of a Loan Asset Backed Vehicle ("LABV") described below provides an interesting case.

Loan Asset Backed Vehicle: an alternative model

According to article 32 of the Commission Proposal, "contributions in kind are not eligible expenditure in respect of FI, except for contributions of land or real estate in respect of investments with the objective of supporting urban development or urban regeneration, where the land or real estate forms part of the investment."

The LABV is a model which is being used primarily in the UK to combine private sector finance and public sector lands or existing assets. The local authority transfers an asset into an SPV, and receives shares in return for this contribution in kind, while the private sector invests cash to fund the regeneration or development works.

This form of PPP, increasingly used to tackle funding issues in regeneration projects, encourages efficiency and value for money as well as long-term vision and sharing of common interests. Once the development is completed or, in some cases after a mid to long-term operations period, the asset is eventually sold to the private market and both parties receive a return. The overall cost of finance has been reduced and, in many cases, the project unlocked.

This model could be used together with FIs including FGs. As authorised in the next programming period, the contribution in kind of the land or existing real estate is an eligible expenditure and can benefit from additional funding or FGs from ESI Funds.

4.3. Measuring the impact

Key Performance Indicators ("KPIs") adapted to FGs, including the multiplier effect, would be set out before the creation of the fund, possibly suggested by the fund manager in a tender process and agreed by the MA.

Ensuring that these indicators are used throughout the life of the fund and provided within a comprehensive reporting framework to the MA and ultimately to the EC would be the responsibility of the fund manager; together with other duties falling under its scope of work, as illustrated in the list of services to be provided by the HF and the UDF to their respective stakeholders. The list provided on the right assumes a HF has been set up; however, as

Holding Fund	UDF
Strategy	Communication and marketing
Eligibility guidance	Project sourcing
State aid guidance	Acquisitions/investments
Co-finance sourcing	Co-investment sourcing
Technical assistance for implementation of projects	Performance monitoring
Performance monitoring	Asset management
Fund management	Compliance audit supervision
Reporting to MAs	Reporting to Holding Fund

described earlier in the Study, it may be that a UDF is set up on its own, in which case the indicators will be modified accordingly.

Key performance indicators

The indicators should be divided into financial and non-financial (impact) categories. One needs to distinguish between KPIs that are part of the reporting obligations of the MA, and directly associated with the OP, and the ones that are specific to FIs, which ultimately contribute to the achievement of OP objectives. While OP objectives mainly address intended socio-economic results of the intervention, financial indicators are used to measure the effectiveness of FIs from a financial point of view. Such financial indicators usually include: payback period (the time it takes for the investment to be repaid - in the case of a FG it is likely to be the length of the FG itself), Internal Rate of Return ("IRR") and Return on Equity ("ROE") (the return applied only to equity, higher than the project IRR if there is leverage with debt; although in the case of FGs it is unlikely to be the case).

Non-financial indicators for the urban development sector include: jobs created in a dedicated area or in a specific sector, company tax increases, unemployment rate, ownership of residential units (percent of the total), social housing proportion, take-up for tenancy, number of cars, time spent in transports, etc. Non-financial indicators related to the environment include: CO2 tons saved, carbon footprint reduction, and kWh saved.

Another important KPI for a guarantee fund is the multiplier effect. Guarantees, along with other financial products, are designed to create a multiplier effect by attracting other public and private financing for projects. Through risk coverage or risk participation, the various instruments should encourage investors to invest in cases where they would otherwise not have invested. When using guarantees, the multiplier effect will be impacted by a number of factors such as the type and development stage of projects, the location, the various stakeholders, and the structure of the UDF. The multiplier effect is, for any given project or project portfolio, the ratio between public and private funding raised (numerator) versus EU and MS funding paid (denominator). In the case of FGs, the calculation could be the following (illustrative example based on a EUR 20k FG issued with a cash ratio of 1:1.25 and unlocking a EUR 80k loan):



5. Conclusion and recommendations

If MAs want to put in place guarantee structures, they need to consider:

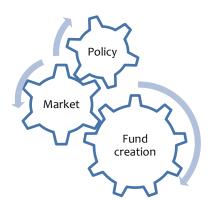
- (i) The general recommendations and lessons learnt about FIs,
- (ii) How to provide guarantees alongside other financial products (namely equity and debt but possibly seed capital as well),
- (iii) How to adapt the related section of their OP to offer the maximum flexibility, and
- (iv) Actions that need to be taken and, in some cases, a decision on what kind of TA is required.

5.1. A resource efficient and complementary instrument

General recommendation and lessons learnt

The main lessons learnt from the private and public entities interviewed during the market testing of FGs as well as during previous feasibility study for FIs:

- a) FIs, including FGs, are highly appealing to both local authorities and the private market if set up properly and based on local needs/requirements.
- b) Policy and regulatory frameworks are of such importance in the conception of FIs that they need to be considered throughout the study. Regulations related to FIs in general, and to FGs, are flexible and might be perceived as unclear. Further clarification is expected from the final accord of the CPR.
- c) Market failure assessments require different steps of analysis (at macro then micro levels) and need to be updated during implementation to ensure a continuing fit with market conditions, which is a key factor of success for the FI.



- d) Education of the public and private sector with respect to revolving investment funds and other FIs (or UDF-type instruments) takes time and requires good communication and demonstration through concrete examples or case studies. Market confidence in FGs provided by a potential UDF requires time and communication efforts.
- e) Financial and non-financial returns (such as social, economic and environmental) in projects for which a FG is issued should be considered together within a blended approach that enables both the private and public sector to be attracted by the risk/return balance of an investment strategy.
- f) UDF-type instruments that issue FGs should be designed by taking account **existing vehicles** that could become a project SPV, UDF or Fund of Funds.
- g) The creation of a dedicated FG fund is triggered by the scale of funds available and the granularity of projects that are to be financed.
- h) Project identification and a proper pipeline are key to engaging in discussions with the private sector as well as making the fund set-up a success. In that sense, "on the ground" communication and marketing is key to ensuring that the different parties buy into the FI concept.

These considerations are crucial and should be taken into account when designing the Fund structure as well as the investment strategy, covering FGs or other FIs in a global approach. In addition to these general recommendations, the complementary of FGs alongside other FIs should be highlighted.

Implement FG alongside other FIs

FGs are very specific instruments. Their risk approach might be similar to loans but their initial purpose and financial structure make them different. They therefore attract different investors, and might need to be isolated and provided through a dedicated fund. The pros and cons of a multi-product FI in comparison to a fund dedicated to FGs were detailed in section 4.1 above.

	Equity	Loan	Guarantee	
Cash required	1:1	1:1 (unless proper bank)	1:1.25 to 1:12	
Risk	Full loss proportionally to project losses	Usual covenants: Underlying asset (if mortgage), parent company shares, FG, etc.	Full loss, triggered by certain conditions and subject to loan default	
Return	High	Medium	Low	
Usual payback period	Short term	Mid term	Mid-long term	
Potential co- investors	Private investors, eventually banks	Banks	Insurers, eventually banks	

FGs are complementary to equity and loans. MAs should consider providing FGs with their ESI Funds only if the market requires it, and after an ex-ante assessment has clearly identified a concrete pipeline of projects that would benefit of these FGs. In any case, loan and equity instruments should be considered as well while trying to address the market failure in urban development and regeneration.

5.2. Recommendations to Managing Authorities

The Common Strategic Framework was prepared by the EC to help MS prepare for the programming period 2014-2020 by setting clear investment priorities. This is to ensure that there is a better combination of the various funds available

to maximise the impact of EU investments. National and regional authorities can use this framework as the basis for drafting and signing their Partnership Agreements and Operational Programmes with the EC, by committing to meeting Europe's growth and jobs targets for 2020.

While the Common Provisions Regulation for all five funds (ERDF, ESF, CF, EAFRD and EMFF) is still under discussion at the time of drafting of this Study, it is already known that the Partnership Agreements and Operational Programmes could mention the possibility of implementing a FI with maximum flexibility. If the MA wants to establish a FI and provide FGs, the OP for the next programming period should ideally include this option and an ex-ante assessment would then be required to support the business case for the FI. Once the OP is agreed, a communication strategy would need to be put in place to achieve support and 'buy-in' from the public and private sector.



Partnership Agreement (extract from EC press release)

In 2013, each MS will be asked to draw up Partnership Agreement where they will assess their development needs and define their national priorities supporting their National Reform Programmes and the achievement of their national targets for delivering on the Europe 2020 strategy. The Partnership Agreement will include:

- Thematic objectives (MS can select from a menu of 11 objectives in line with the "Europe 2020" strategy);
- Investment priorities for each thematic objective;
- Conditions which will be the pre-requisite to EU funding (see below);
- Targets that MS plan to reach by the end of the programming period, as well as performance indicators and milestones.

The Partnership Agreement will constitute a firm agreement between the Commission and the MS regarding the use of funds and performance. Failure to achieve progress may lead to suspension or cancellation of funding.



Articles 105 and 106 of the Commission Proposal detail the responsibilities and requirements with respect to communication. Once the OP is agreed and the FI is established, it will be critical to put in place a communication campaign. Understanding that the culture gap (and to some extent, information gap as well) and novelty are the main barriers for the establishment of FGs, a communication strategy needs to be prepared carefully to raise awareness and clarify the mechanics of the instrument.

The importance of the **vocabulary used** and the **signals given** to the market are key: what is the blue zone described earlier in this Study? Why do some projects need support? Why are these projects interesting and attractive, even for the private sector, and not desperate projects doomed to fail that require public help?

FIs play an active role in a market that is (or should be) based on sound investment principles, and not on zero-return grants without follow-up. The case to be demonstrated is to show how the investment community can have a high

positive impact while investing in projects that provide a profit. This concept requires a double shift: from public sector bodies and policy makers, and from private sector investors and project developers.

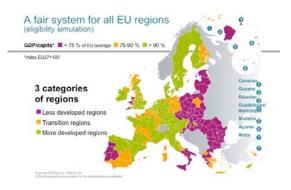
Public sector bodies and policy maker

Understanding the interest of FIs including FGs would be the first step. Accepting that FIs are complementary to grants, that they allow a better use of public funds and better project structuring, would follow. The investment strategy of such FIs, including FGs, should be agreed within a large panel of public bodies involved in the MA's region and after adequate market testing has been performed. This is to ensure that the strategy is in line with on-the-ground expectations and that the pace in project delivery is accelerated, despite economic market cycles or political waves.

Private sector investors

Private investors need to better understand and feel confident that

investing in impact projects and working with public bodies is an opportunity rather than an obstacle. Impact projects have the ability to provide returns that are similar to those found in the private market; they may also provide adequate risk mitigation measures, significant opportunities for further development of the private investors' activities, and indirect benefits to the wider community. Where they create jobs, save energy or eradicate poverty, the projects



create value. An earlier investment in these projects with a long-term vision from the private sector will result in greater value for investors and increased returns.

Project developers

Project developers need to change how they design and structure projects when faced with a lack of funding. Poorly structured projects that are not financially viable cannot be improved by FIs even though they might have a high impact. If an MA's investment strategy and project selection methodology is comprehensive and clearly explained to project developers, and if the latter understand that the availability of funding is directly linked to the project's viability, projects are likely to be designed and structured in a way that unlock their development opportunity.

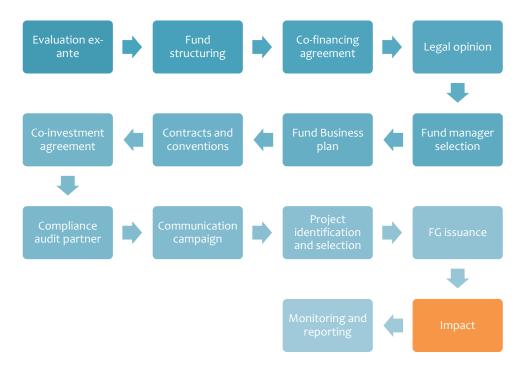
Once public sector bodies, private sector investors and project developers have a good understanding of the purpose of a FI and how FGs can unlock project delivery in urban development and regeneration, the aim and objective of ESI Funds is likely to be reached. However, communication is but one step within a wider process and list of actions that need to be taken before projects can be implemented.

Action plan and technical assistance

Implementing FIs and especially FGs require a long preparation period, including several steps and milestones. While the aim of this study is not to detail the steps to be followed, the section below highlights the main actions that need be undertaken and the support for such actions that can be provided by appropriate TA.

Actions to be taken

The diagram below highlights the main actions to implement a FI such as a FG:



The market assessment performed through the ex-ante assessment can anticipate and update its conclusions and the consequent investment strategy by the Fund is actually implemented in order to ensure its up-to-date compatibility with current market needs.

Technical assistance

Articles 51 and 52 of the Commission Proposal state what TA can be provided, at the initiative of the Commission or at the initiative of a MS. The Commission Proposal allows different bodies to conduct TA, including the EIB and other experienced entities in the implementation of FIs.

The usual tasks covered by TA include:

- project preparation and appraisal,
- management of FIs,
- launch of studies such as ex-ante assessment,
- fund structuring,
- co-financing and co-investment seeking,
- assistance in communication campaign,
- audit of schemes regarding eligibility and State aid,
- general project management.

This study recommends that the MA set up a dedicated axis to TA with a budget allocation¹⁷ in their OP, so that MAs can benefit from the available expertise, especially where FIs are implemented for the first time or where previous FIs have not provided the expected results. Whether the administration of funding for TA will be carried out (i) directly by the MA, (ii) by the manager of the FI, or (iii) by a third party with specialised expertise and objectivity will be depend on the respective investment strategy and incentive scheme. In any case, it is highly recommended that a TA component (funding and scope of work) is included in the set up structure of the FI to enhance quality and speed of implementation.

 $^{^{\}rm 17}$ In line with Article 109 of the Commission Proposal



5.3. Conclusion

The Study has demonstrated the market failure with respect to providing funding to urban development and regeneration projects that have a high expected impact on their environment and community. The potential of FGs to address specific market gaps has also been demonstrated through different cases studies and market testing.

The Study has also presented the main options for structuring a FG instrument and a Fund that would issue FGs with the help of ESI Funds. It is now up to the MS and MAs to decide whether or not they want to allow this FI to be created in the next Programming Period.

Within all the sectors that this Study has considered, and for all projects that are considered to fall in the "blue area" (see definition in part 1.2), the key issues are availability of funds and mitigation of risks. FGs are clearly not intended to provide a solution for funding projects that are not viable. However, FGs can enable public funds to mitigate risks and unlock those projects that are viable but not yet addressed, understood or trusted by the private market.

For those projects with a high impact, it is the public authority's duty to address the market failure and therefore use public funds to provide guarantees and unlock such projects. Once the private market has received a signal and the confidence that a new model is being established, it is expected that these projects will move out of the blue area and be able to raise funds on their own. This, in turn, should allow the blue area to shift to new sectors or project types, and the FI's investment strategy should follow.



List of abbreviations

AGP	Adjusted Gross Premium
BF	Bagnoli Futura
ВОТ	Build Operate and Transfer
CDO	Collateralised Debt Obligation
CDS	Credit Default Swap
CEB	Council of Europe Development Bank
CEF	Carbon Energy Fund
СНР	Combined Heat and Power
CIP	Competitiveness and Innovation Framework Programme
CLO	Collateralised Loan Obligations
COCOF	Committee for the Coordination of the Funds
CPR	Common Provisions Regulations
CSF	Common Strategy Framework
DECC	Department of Energy and Climate Change (UK)
DG REGIO	European Commission's Directorate-General for Regional and Urban Policy
EBRD	European Bank for Reconstruction and Development
EC	European Commission
EIB	European Investment Bank
ECA	Export Credit Agency
ECO	Energy Company Obligation
EE	Energy Efficiency
EEEF	European Energy Efficiency Fund
EIF	European Investment Fund
EPA	Environmental Protection Agency
EPC	Engineering, Procurement and Construction
EPG	Energy Performance Guarantee
ERDF	Energy Performance Guarantee European Regional Development Fund

ERR	Economic Rate of Return	
ESF	European Social Fund	
ESI Funds	European Structural and Investment Funds	
ESCO	Energy Service company	
ETS	Energy Trading Scheme	
EU	European Union	
FEI	Financial Engineering instruments	
FG	Financial Guarantees	
FI	Financial Instrument	
FLPG	First Loss Portfolio Guarantee	
FRR	Fair Rate of Return	
GAAP	Generally Accepted Accounting Principles	
GBER	General Block Exemption Regulation	
GES	Guaranteed Energy Savings	
GIB	Green Investment Bank	
HF	Holding Fund	
IEA	International Energy Agency	
IRR	Internal Rate of Return	
IT	Information Technology	
ITI	Integrated Territorial Investment	
JEREMIE	Joint Resources for Micro to Medium Enterprises	
JESSICA	Joint European Support for Sustainable Investment in City Areas	
KfW	Kreditanstalt für Wiederaufbau	
LEEF	London Energy Efficiency Fund	
LGTT	Loan Guarantee Instrument for Trans European Transport Network Projects	
LDA	London Development Agency	
LTRO	Longer Term Refinancing Operations	



LWRB	London Waste and Recycling Board
MA	Managing Authority
MDF	Municipal Development Fund
MIGA	Multilateral Investment Guarantee Agency
MS	Member States
NFOS	National Fund for Environment Protection (Poland)
NSRF	National Strategy Reference Framework
OECD	Organisation for Economic Cooperation and Development
ОР	Operational Programme
PAC	Piano di Azione per la Coesione (Italy) (Cohesion Action Plan)
PBF	Prudential Borrowing Framework
PBI	Project Bond Initiative
PCG	Partial Credit Guarantee
PPP	Public Private Partnership
PRG	Partial Risk Guarantee
PRI	Political Risk Insurance
PSE	Public Sector Entities
PWLB	Public Works Loan Board (United Kingdom)
R&D	Research and Development
RE	Renewable Energy
RMBS	Residential Mortgage Backed Securitisation
ROE	Return on Equity
ROP	Regional Operational Programmes
RSF	Risk Sharing Facility
SMEs	Small and Medium sized Enterprises
SMEG	SME Guarantee Facility
SF	Structural Funds
SFF	Structured Finance Facility rules
SPRUCE	Scottish Partnership for Regeneration in Urban Areas
SPV	Special Purpose Vehicle
TA	Technical Assistance

TEN	Trans-European Transport Network infrastructure projects
UDF	Urban Development Fund
WB	World Bank
WBG	World Bank Group

Glossary

ABS	Asset backed securities are bonds or notes backed by financial assets (receivables such as credit card receivables, auto loans, home equity loans, manufactured housing contracts).
Accommodation Project	Accommodation projects include schools, universities, hospitals, prisons, and administration buildings. Risk transfer is typically achieved through an availability based payment mechanism – payment is made provided the facilities are available in line with agreed criteria.
Commission Proposal	Commission proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL laying down common provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund covered by the Common Strategic Framework and laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and repealing Council Regulation (EC) No 1083/2006. Brussels, 11.9.2012 – COM (2012) 496 final 2011/0276 (COD)
Article 44b	Under Article 44b of Council Regulation (EC) No 1083/2006, Financial Engineering Instruments can be established to invest in Urban Development.
Availability Payment	Availability payments are all regular payments made by the public sector to a private sector sponsor or concessionaire contingent on specific contracted services being made available by the sponsor within a contractually defined time period.
Basel III	Also referred to as the Third Basel Accord, it is a global regulatory standard on bank capital adequacy, stress testing and market liquidity risk agreed upon by the members of the Basel Committee on Banking Supervision to be introduced from 2013 until 2018.
Beneficiary	An operator, body or firm, whether public or private, where such operations are organised through a Holding Fund, to the extent that the Holding Fund is responsible for initiating or initiating and implementing the operation, the Holding Fund is the beneficiary.
Capital Adequacy	Minimum requirements established by the respective regulatory entities for financial institutions such as banks or insurance companies within their jurisdiction. It is measured as a ratio between that financial institution's core capital (numerator) and its risk-weighted portfolio of assets (denominator).
CAPEX	Capital expenditures are the one-time costs incurred during the engineering and construction phase of tangible project assets like a building, power station or comparable fixed installations.
СНР	Combined heat and power plants integrate the production of usable heat and power (electricity) in one single process.
Co-financing	All Structural Fund resources are required to be co-financed by other public or private resources for Managing Authorities to be able to disburse Structural Funds. The Operational Programme sets out how the Structural Fund and its co-financing should be invested, either as Grant or through Financial Engineering Instruments. Both the Structural Funds and the co-financing must be administered and spent in line with the applicable European Union regulations.
Cohesion Policy	Cohesion Policy provides the framework for promoting economic growth, prosperity, and social integration across all 27 EU Member States. It aims to reduce economic and territorial disparities across the EU through three main objectives for the 2007-2013 programming period: convergence; competitiveness and employment; and territorial cooperation.



Co-investment	Co-investment refers to public or private sector resources additional to Structural Funds contributions, which when added to the Structural Fund create a Leverage Effect. Part of co-investment, which constitutes national co-financing of operational programme, is subject to Structural funds regulations. Part of co-investment, which is additional to OP contributions, is not subject to European Union Structural Fund regulations.
Common Provision Regulations	Regulations as proposed by the Commission and currently under negotiation for the 2014-2020 programming period.
Common Strategic Framework	The framework, which translates the objectives and targets of the EU strategy for smart, sustainable and inclusive growth into key actions for the ESI Funds.
CSF Funds	Common Strategic Framework Funds – see ESI Funds.
Credit Wrap	Financial guarantees, covering not all debts of the borrower, but a specific loan, debt issuance, or other financial transaction.
DBFO Contract	Design, Build, Finance and Operate: a contract scheme covering the whole life cycle of a project within the responsibility of a single project sponsor.
EC Model	Economic capital model: risk management tool employed in the financial/insurance industry to determine how much capital a company needs to sustain excess losses over a defined period of time.
EPC	Engineering, Procurement and Construction: a contract scheme whereby one contractor assumes all three tasks within a single contract.
ESI Funds	European Structural and Investment Funds for the next programming period. This includes: European Regional Development Fund (ERDF), Cohesion Fund (CF), European Social Fund (ESF), European Agricultural Fund for Rural Development (EAFRD), and European Maritime and Fisheries Fund (EMFF). ESI Funds were formerly referred to as CSF Funds.
Final recipient	The term Final Recipient refers to enterprises, Public Private Partnerships, projects and any legal or natural person receiving Repayable Investments (namely through Equity participations, Loans, Guarantees and other forms of Repayable Investments implemented through similar transactions, with the exception of Grants) from a Financial Engineering Instrument.
	Financial Engineering Instruments are those set up under Article 44 of Council Regulation (EC) No 1083/2006. As part of an Operational Programme, the Structural Funds may finance of the following:
Financial Engineering	(a) Financial Engineering Instruments for enterprises, primarily small and medium-sized ones, such as Venture Capital funds, Guarantee funds and Loan funds
Instruments	(b) Urban Development Funds, that is, funds investing in Public-Private Partnerships and other projects included in an Integrated Plan for Sustainable Urban Development
	(c) Funds or other incentive schemes providing Loans, Guarantees for Repayable Investments, or equivalent instruments, for energy efficiency and use of renewable energy in buildings, including in existing housing.
Financial Instruments	Financial Instruments is the term used in preference to Financial Engineering Instrument for the next programming period. Financial Instruments eligibility covers the 11 Thematic Objectives as well as the Common Strategic Framework Funds.
Financial Intermediary	Financial Intermediary refers to the body acting as an intermediary between the supply and demand of financial products.

Financial Products	In the context of this study, it refers to guarantees, loans, mezzanine and equity, which can be offered by UDFs in the context of JESSICA operations.
Fixed-price Date- certain Contract	Any delivery contract with a defined price and delivery date, usually found in conjunction with an EPC scheme (see above).
Fund Manager	The individual(s) or entity (ies) responsible for implementing the investment strategy and managing the portfolio of investments related to the Financial Engineering Instruments (being Equity funds, Loan funds, Guarantee funds), in accordance with the stated goals and provisions as set out in the Funding Agreement.
	Level I - between the Member State or the Managing Authority and the Holding Fund, where Financial Engineering Instruments are organised through Holding Funds.
	Level II - between the Member State or the Managing Authority (or the Holding Fund where applicable) and the individual Financial Engineering Instruments. Level II Funding Agreements are also referred to as an Operational Agreements.
Funding Agreement	Funding Agreements must ensure the correct implementation of the strategy, including goals to be achieved, target sectors and Final Recipients to be supported, as set out in the Operational Programme, through a coherent investment strategy, range of products, likely project types and targets to be achieved through the Financial Engineering Instruments. Moreover the Funding Agreements must also contain a corpus of rules, obligations and procedures, to be observed by the parties concerned, regarding the financial contributions made by the Operational Programme.
GBER	As part of the rationalisation and simplification of State aid rules, the Commission adopted a General Block Exemption Regulation (GBER). The main purpose of the block exemption approach is to obviate the need for prior notification and approval of aid schemes in areas where the Commission has defined the circumstances in which it will find aid to be compatible with the common market.
Guarantee	A Guarantee is a commitment by a third party, called the guarantor, to pay the debt of a borrower when the latter cannot pay it themselves. The guarantor is liable to cover any shortfall or default on the borrower's debt under the terms and conditions as stipulated in the agreement between the guarantor, the lender and/or the borrower.
Halo Effect	The comfort provided to an investor or lender (when faced with certain risks) by the presence of an AAA rated institution such as the World Bank Group in a project, and the ability of the latter to help the investor/lender in resolving potential disputes or problems.
Holding Fund	Holding Fund is as described in the EU Regulations and are funds set up to invest in Venture Capital funds, Guarantee funds, Loan funds, Urban Development Funds, funds or other incentive schemes providing Loans, Guarantees for Repayable Investments, or equivalent instruments, for energy efficiency and use of renewable energy in buildings, including in existing housing.
Indemnity Agreement	An agreement between parties to determine the compensation for damages or loss.
Limited Recourse Financings	The lending of money on the basis of selected and detailed provisions on collateral and securities thus avoiding a general obligation by the borrower(s). Only in certain well defined circumstances will there be recourse to the sponsor's credit or other legal security (aside from the project's cash flows); these events would include misrepresentation, fraud or wilful negligence.

Lloyds Market	Also known as Lloyd's of London or simply Lloyd's, established by Lloyd's Act 1871 refers to a British insurance and reinsurance market serving as a partially mutualised marketplace where multiple financial backers come together to pool and spread risks.
Longer Term Refinancing Operations	Thee Euro system's regular open market operations include euro liquidity-providing operations (longer-term refinancing operations or LTROs). LTROs aim to provide additional, longer-term refinancing to the financial sector.
Managing Authority	The detailed management of Operational Programmes, which receive support from the Structural Funds, is the responsibility of the Member State of the European Union. For every programme, they designate a Managing Authority (at national, regional or another level) which select the operation and monitor implementation. This can also be delegated to Intermediate Bodies, e.g. for a specific sub-region or city.
MBS	Mortgage Backed Securitisation, a sub-type of asset backed securitisation (see ABS above) using mortgages as the underlying asset.
Monoline insurers	Monolines, or monoline insurers, are entities which guarantee the repayment of bonds or similar type of debt. The default risk is thus transferred from debt holders to the insurer in exchange for a risk premium. Often this type of insurance is used for investment tranches in project finance deals involving the public sector.
Multiplier Effect / Ratio	This refers, for any given project or project portfolio, to the ratio between public and private funding raised (numerator) versus EU and Member State funding employed (denominator).
Operational Programme	Document approved by the Commission comprising a set of priorities, which may be implemented by means of Grants, repayable assistance and financial engineering instruments depending on the design of the Operational Programme.
Pari Passu Treatment	Legal term used to describe the fact that two or more financial instruments have the same class in terms of repayment rights.
PFI	Private finance initiative introduced in the UK in 1992 as a means of bringing greater discipline in the procurement of public infrastructure. Under this policy, the private sector was engaged to design, build, finance and operate infrastructure facilities under a long-term contractual arrangement (up to 30 years).
РРР	According to the EC Communication on PPPs (COM(2009)615, 19.11.2009), PPPs are forms of cooperation between public authorities and the private sector that aim to modernise the delivery of infrastructure and strategic public services. In some cases, PPPs involve the financing, design, construction, renovation, management or maintenance of an infrastructure asset; in others, they incorporate the provision of a service traditionally delivered by public institutions.
Presidency compromise on financial instruments	COUNCIL OF THE EUROPEAN UNION – 2011/0276 (COD) - Brussels, 20 June 2012 Cohesion Policy legislative package - Presidency compromise text on financial instruments. Rep COM(2011) 615 final/2.
State aid	Article 107(1) of the EU Treaty prohibits the granting of State aid, i.e. a subsidy paid by government to the business or economic sector. A number of derogations set out the circumstances in which State aid is, or may be, compatible with the Treaty.

Subrogation Rights	In the context of guarantees, the right by one party (the guarantor) to 'step into the shoes' of another party (the insured) after payment of a claim, allowing the former to succeed to the rights of the other in relation to a debt claim, its rights and remedies.
Technical Assistance	In the context of this report this term is to be intended as comprising technical and financial advisory support required to successfully implement Financial (Engineering) Instruments.
Thematic Objectives	The proposed Thematic Objectives for 2014-2020 are detailed in the section 3.1 of the present study.

Reference Library

Document title	Date of publication	Hyperlink
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COMMISSION STAFF WORKING DOCUMENT Financial Instruments in Cohesion Policy	February 2012	Click here
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COCOF 08/0002/03-EN - Guidance note on Financial Engineering	December 2008	Click here
COCOF o8/oo34/o2/EN - Guidance note on eligibility of energy efficiency and renewable energies interventions	October 2008	Click here
Vademecum Community law on State aid	September 2008	Click here
COCOF 07/0018/01-EN - Financial Engineering in the 2007-13 programming period	July 2007	Click here
State aid control and regeneration of deprived urban areas	May 2006	Click here
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