

# Mobilising private investment for climate change action in the EU: The role of new financial instruments

Sirini Withana  
Jorge Núñez Ferrer  
Keti Medarova-Bergstrom  
Axel Volkery  
Sonja Gantioler



Disclaimer: The arguments expressed in this report are solely those of the authors, and do not reflect the opinion of any other party. Any errors that remain in the report are the responsibility of the authors.

This report is developed as part of a policy dialogue platform dedicated to mainstreaming climate change in the 2014-2020 EU budget. For further information on the policy dialogue platform, please contact: Keti Medarova-Bergstrom at [kmedarova@ieep.eu](mailto:kmedarova@ieep.eu)

Funding from the European Climate Foundation is gratefully acknowledged.

This report should be cited as:

Withana, S., Núñez Ferrer, J., Medarova-Bergstrom, K., Volkery, A., and Gantioler, S. (2011) *Mobilising private investment for climate change action in the EU: The role of new financial instruments*, IEEP, London/Brussels.

Jorge Núñez Ferrer is an Associate Research Fellow at CEPS and the University of Leuven. All other authors are IEEP staff.

Institute for European Environmental Policy  
London Office  
15 Queen Anne's Gate  
London, SW1H 9BU  
Tel: +44 (0) 20 7799 2244  
Fax: +44 (0) 20 7799 2600

Brussels Office  
Quai au Foin, 55  
Hooikaai 55  
B- 1000 Brussels  
Tel: +32 (0) 2738 7482  
Fax: +32 (0) 2732 4004

The **Institute for European Environmental Policy (IEEP)** is an independent not-for-profit institute. IEEP undertakes work for external sponsors in a range of policy areas. We also have our own research programmes and produce the *Manual of European Environmental Policy* (<http://www.europeanenvironmentalpolicy.eu/>). For further information about IEEP, see our website at <http://www.ieep.eu> or contact any staff member.

## Contents

<b>1. INTRODUCTION .....</b>	<b>4</b>
1.1 Background.....	4
1.2 Objective, scope and structure of this report .....	5
<b>2. LEARNING FROM PAST EXPERIENCES WITH FINANCIAL INSTRUMENTS.....</b>	<b>7</b>
2.1 Overall background.....	7
2.2 Risk-Sharing Finance Facility (RSFF).....	8
2.3 Loan guarantee instruments and EIB financing in the transport sector .....	11
2.4 Financial engineering under Cohesion Policy: The example of JESSICA.....	12
2.5 ELENA .....	15
2.6 EU equity instruments: The Marguerite Fund.....	17
2.7 European Energy Efficiency Fund (EEEF).....	18
2.8 National initiatives.....	21
2.9 Public Private Partnerships (PPPs).....	23
<b>3. FINANCIAL INSTRUMENTS IN THE 2014-2020 MFF .....</b>	<b>25</b>
3.1 Overall background .....	25
3.2 Proposals for common rules and guidance .....	26
3.3 The Europe 2020 project bond initiative.....	28
3.4 Financial instruments under the 2014-2020 Structural and Cohesion Funds.....	33
<b>4. MAXIMISING OPPORTUNITIES, MANAGING RISKS – KEY ISSUES FOR THE FUTURE USE OF NEW FINANCIAL INSTRUMENTS .....</b>	<b>34</b>

# 1. INTRODUCTION

## 1.1 Background

A major and sustained increase in public and private investment is needed for the European Union (EU) to meet its 2020 climate change and energy objectives and to take forward its 2050 decarbonisation agenda. Key investment needs have been identified in various areas including energy infrastructure, renewable energies, the built (urban) environment, advanced industrial processes, sustainable transport systems, and in relation to adaptation to climate change. According to European Commission figures, annual investments of around €270 billion are needed over the next 40 years to meet emerging needs and achieve a transition to a low carbon economy by 2050.<sup>1</sup> Varying estimates have been put forward in relation to adaptation costs, for example one study suggests adaptation-related infrastructure costs will vary between €4 to 60 billion/year,<sup>2</sup> while another estimates a cost of 0.2 per cent to 0.5 per cent of GDP, or €20 billion to €65 billion, for the EU.<sup>3</sup>

Currently, the EU and its Member States face significant budgetary constraints and limited additional financing is expected to come from the public purse. Thus, attention is turning to ways to unlock the investment potential of the private sector. The private sector has been involved in financing infrastructure projects in the past. However the on-going economic and financial crisis has dramatically decreased the amount of long-term finance available and has made it more difficult to obtain bank loans for projects or products considered less commercially viable or associated with high risks. International finance institutions, such as the European Investment Bank (EIB), have tried to relieve the situation by increasing total lending, however available funds are greatly surpassed by overall investment needs. There is thus a need to find ways of engaging new, or re-engaging private investors, particularly institutional investors (pension funds, sovereign funds) to help address the climate financing gap.

To engage the private sector, expected returns on climate-related investment should be commensurate with the perceived level of risk. This is however often not the case and the private sector continues to face a number of barriers or constraints to investing in the low-carbon sector, including *inter alia* risks relating to policies underpinning investments (regulatory certainty), distorted price signals, a lack of commercially attractive low carbon projects, difficulties in evaluating risks relating to low carbon investments<sup>4</sup>, a difficult business investment climate, inadequate access to finance and insufficient risk-adjusted returns<sup>5</sup>. Well managed and designed public support for example through the use of new

---

1 EC (2011) A Roadmap for moving to a low carbon economy in 2050. Communication from the Commission. (COM (2011)112), 8.3.2011, Brussels.

2 Climate Cost. The Costs and Benefits of Adaptation in Europe: Review Summary and Synthesis. Policy brief.

3 Joint Research Centre, Institute for Prospective Technological Studies, Institute for Environment and Sustainability (2009). Climate Change Impacts in Europe. Final report of the PESETA research project. Luxembourg, Publications Office of the European Union

4 UNEP and Partners (2009), Catalysing low-carbon growth in developing economies - Public Finance Mechanisms to scale up private sector investment in climate solutions, October 2009

5 EC (2011), Scaling up international climate finance after 2012, Commission Staff Working Document (SEC(2011)487), 8.4.2011 Brussels

financial instruments can help overcome some of these barriers, bridge gaps and share risks (and rewards)<sup>6</sup>. The use of such instruments is however not without controversy. In the EU context for instance there remain a number of concerns among Member States, the European Parliament and other stakeholders about the possible implications of this shift in funding such as potential market disruption, budgetary risks, overlaps with other instruments, reflow of funds etc.<sup>7</sup>

According to the proposed definition by the European Commission, ‘financial instruments’ are measures of financial support provided from the EU budget to address a specific policy objective by way of loans, guarantees, equity or quasi-equity investments or participations, or other risk bearing instruments, possibly combined with grants.<sup>8</sup> Financial instruments are termed ‘innovative’ or ‘new’ when they differ from financing mechanisms traditionally used in a policy area (e.g. grants, public procurement), as such their definition and scope might strongly depend on the area they address.

The potential of these instruments to leverage private sector financing in a particular area can be quite significant. For example, research conducted by the United Nations Environment Programme (UNEP) suggests that \$1 of public investment spent through a well-designed public finance mechanism<sup>9</sup> can leverage between \$3 and \$15 of private sector money. This is expected to be a conservative estimate as many financial instruments ‘roll over’, support multiple generations of investments and help create markets that continue after public support is withdrawn<sup>10</sup>. The actual amount of private capital mobilised depends on a number of external enabling conditions/factors including the pipeline of projects seeking investment<sup>11</sup>, local and regional capacities to manage the instruments, the regulatory framework, certainty about policy direction etc. The discussion on new instruments for financing climate change investments should take this broader perspective into account.

## 1.2 Objective, scope and structure of this report

The objective of this report is to contribute to the evolving discussions on the use of new financial instruments in the EU, in particular with regard to the following questions:

- What new financial instruments are already in use and how do they contribute to climate-related EU expenditure?

---

<sup>6</sup> Benefits resulting from the achievement of climate change objectives will not only profit the public and society at large, but also lead to (indirect) benefits to the private sector (‘positive externalities’).

<sup>7</sup> See for example the response of the Dutch Government to the consultation on the EU project bond initiative in spring 2011, [http://ec.europa.eu/economy\\_finance/consultation/pdf/dutch\\_government\\_en.pdf](http://ec.europa.eu/economy_finance/consultation/pdf/dutch_government_en.pdf)

<sup>8</sup> EC, (2010), Proposal for a Regulation of the European Parliament and of the Council on the financial rules applicable to the annual budget of the Union, (COM(2010) 815), 22.12.2010, Brussels

<sup>9</sup> Financial commitments made by the public sector which alter the risk-reward balance of private sector investments.

<sup>10</sup> UNEP (2008), Public finance mechanisms to mobilise investment in climate change mitigation: An overview of mechanisms being used today to help scale up the climate mitigation markets, with a particular focus on the clean energy sector, Final report

<sup>11</sup> UNEP (2008), Public finance mechanisms to mobilise investment in climate change mitigation: An overview of mechanisms being used today to help scale up the climate mitigation markets, with a particular focus on the clean energy sector, Final report

- What are the plans for their continuation under the post-2013 EU Multi-annual Financial Framework (MFF) and what are the prospects for future climate-related EU expenditure? What modifications will help to increase their leverage effect for climate-related investments?
- What conditions are necessary for these instruments to work properly?
- What are key opportunities and concerns?

Discussing these issues should provide useful information for the on-going negotiations on the future design of EU funds and their instruments under the 2014-2020 EU MFF. Our main argument in this respect is that new financial instruments, if well designed and targeted, have a critical role to play in financing the transition to a low-carbon economy. However, expectations should be realistic. These instruments do not provide a silver bullet for addressing Europe's financing needs for the transition to a low-carbon economy. They require a broader, long-term perspective on capacity-building and policy-learning needs in EU Member States to create conditions for the effective deployment of financial instruments beyond their current niche status. Success in this direction is dependent on having a regulatory framework in place that provides certainty for investors. Even if well-designed and targeted, financial instruments could fail to exhaust their full potential if they are not backed by supportive political framework conditions.

This report covers those financial instruments which use public finances (in particular from the EU budget) to leverage private sector investments or increase the leverage of public finance such as blending loans with grants, debt instruments, guarantee schemes, and risk-bearing instruments. The particular focus is on the use of such instruments in the context of financing climate change action. Instruments that seek to raise sources of public finances for climate change action in non-traditional ways (e.g. through carbon taxes, auction revenues under the EU ETS, etc.) are outside the scope of this report as are those instruments which are exclusively related to private finance such as foreign direct investment, private sector initiatives, etc. Many of the financial instruments discussed in this report are already commonly used. Their application to new policy areas such as biodiversity and climate change, a more systematic approach to their use in the EU context, their use to complement traditional EU grant funding or combination (blending) with grant funding has earned them the label 'innovative' or 'new'.

The analysis in this report is based on a review of policy documents and literature on financial instruments and climate change financing. In addition, it draws on discussions with key policy makers and stakeholders at a workshop on *'Exploring the potential of new financial instruments for climate change'* organised by IEEP on 11 October 2011 in Brussels and in bilateral meetings. The remainder of this report is structured as follows. Chapter 2 sets out the policy background to the discussion on financial instruments in the EU context. Chapter 3 examines some practical experiences in the use of a selected number of financial instruments in the 2007-2013 MFF, including success factors and barriers faced, so as to draw out good practices and lessons learnt. Chapter 4 contains a brief overview of the Commission's proposals for new financial instruments in the 2014-2020 MFF, with a particular focus on the project bond initiative and the Structural and Cohesion Funds. The report concludes with some observations on the potential opportunities and caveats of using financial instruments to finance climate change action in the EU.

## 2. LEARNING FROM PAST EXPERIENCES WITH FINANCIAL INSTRUMENTS

### 2.1 Overall background

The EU already has some experience with the use of different financial instruments which go beyond 'traditional' public procurement and grants. These instruments have been introduced on an ad hoc and/or experimental basis in several areas of EU policy. Financial instruments in the current (2007-2013) EU MFF include:

- Risk-sharing instruments such as the Risk-Sharing Finance Facility for investments in research, development and innovation (RSFF) and the Loan Guarantee Instrument for TEN-T projects (LGTT);
- Financial engineering and technical assistance under EU Cohesion Policy;
- Guarantees and venture capital for SMEs under the Competitiveness and Innovation Framework Programme (CIP), and
- Equity instruments such as the Marguerite Fund.

Currently around 1.3 per cent of the annual EU budget is implemented through financial instruments (on average less than €500 million per year at EU level). Despite this modest share, it is estimated that blending between grants from the EU budget and loans from the EIB and other financial institutions has trebled the impact of EU spending by attracting investment from financial institutions<sup>12</sup>. The coming years are likely to see an increased share of the EU budget delivered through these instruments. For example, the Commission's roadmap for moving to a low carbon economy<sup>13</sup> promotes the use of revolving funds, preferential interest rates, guarantee schemes, risk-sharing facilities and blending mechanisms; while the roadmap to a resource efficient Europe<sup>14</sup> promotes *inter alia* the establishment of a biodiversity financing facility and payments for ecosystems services (e.g. through public private partnerships).

Evaluations of some existing EU financial instruments have been helpful in identifying success factors and critical issues related to the use of such instruments.<sup>15,16</sup> For example, existing financial instruments have been found to be successful in providing funding in cases where beneficiaries did not have any other option for obtaining the funds and/or have encouraged financial intermediaries to develop and offer new financial products at the local level. In cases where the implementation of EU programmes has been delegated to other financial institutions (such as the EIB), additional benefits have included the provision of expert skills on how to implement such instruments and the promotion of best practice. Evaluations show mixed results with regard to the EU value added of some instruments in relation to existing national support schemes. For example it was found that interventions

---

<sup>12</sup> EC (2010) EU Budget Review. Communication from the Commission. (COM(2010)700), 19.10.2011, Brussels

<sup>13</sup> EC (2011) A Roadmap for moving to a low carbon economy in 2050. Communication from the Commission. COM (2011)112, 8.3.2011, Brussels.

<sup>14</sup> EC (2011) Roadmap to a Resource Efficient Europe. Communication from the Commission. (COM (2011)571), 20.9.2011, Brussels.

<sup>15</sup> Mann, E. (2010) Mid-term evaluation of the risk-sharing financial facility (RSFF) Final draft of the group of independent experts, July 2010

<sup>16</sup> CSES and EIM (2011) Final evaluation of the entrepreneurship and innovation programme. Final report, April 2011, Centre for strategy and evaluation services and

supported by the SME Guarantee Facility under CIP could have been accommodated through national instruments.<sup>17</sup>

Some lessons can also be learnt with regard to the common challenges and barriers to the effective use of such instruments. Many financial instruments in the 2007-2013 MFF were designed in isolation from each other. This created a substantive overlap in the scope of actions or the type of target beneficiaries. In addition, the financial instruments often had different design and management structures which made it more difficult for potential beneficiaries to understand how to use them. It has also been found that the current risk-sharing model, which is based either on a project-by-project risk assessment or on financial risk-sharing between the EU budget and the financial institutions, has limited the capacity to take into account market needs for a higher volume of risk-based financing. Improvements are also needed in strengthening the visibility of EU financial instruments and ensuring more transparent information and better communication to intermediaries.<sup>18</sup>

The remainder of this chapter provides a more detailed analysis of some new financial instruments already in place.

## 2.2 Risk-Sharing Finance Facility (RSFF)

One of the main weaknesses in relation to investment in research and development (R&D) in the EU concerns the mobilisation of private investment,<sup>19</sup> in particular in relation to green technology<sup>20</sup> and in bringing new discoveries to the market<sup>21</sup>. While basic research and testing are usually covered by grants, the results of such research are often untested at industrial scale and far from the stage of market deployment. The gap between R&D results and market deployment is sometimes referred to as the 'valley of death' or the 'technology death-risk area'<sup>22</sup>. The timescale, cost and risk level for each technology determines the existence and size of the 'technology death risk-area'. This area is described in Figure 1 as a zone in which private sector finance is not available due to rising costs and long maturity periods. Bridge capital can assist in financing and increasing the bankability of projects by reducing risks and associated interest rate costs.

---

<sup>17</sup> EC (2011) A framework for the next generation of innovative financial instruments - the EU equity and debt platforms, Communication from the Commission, (COM(2011)662), 19.10.2011, Brussels

<sup>18</sup> EC (2011) A framework for the next generation of innovative financial instruments - the EU equity and debt platforms, Communication from the Commission, (COM(2011)662), 19.10.2011, Brussels

<sup>19</sup> Uppenberg, K. (2009), R&D in Europe: Expenditures across Sectors, Regions and Firm Sizes, CEPS and the European Investment Bank, Brussels and Luxembourg.

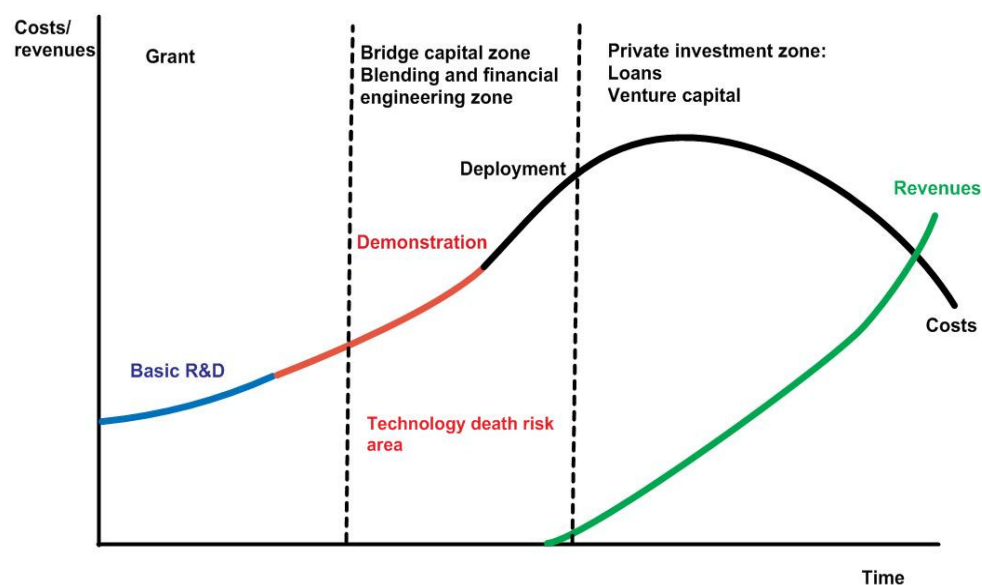
<sup>20</sup> Aghion, P., R. Veugelers and C. Serre (2009), "Cold Start for the Green Innovation Machine", Bruegel Policy Contribution, Issue 2009/12, Bruegel, Brussels, November.

<sup>21</sup> Núñez Ferrer, J., C. Egenhofer, C., M. Alessi, (2011), 'SET-Plan, from concept to Successful Implementation', CEPS Task Force Report, May 2011

<sup>22</sup> Núñez Ferrer, J., C. Egenhofer, C., M. Alessi, (2011), 'SET-Plan, from concept to Successful Implementation', CEPS Task Force Report, May 2011



**Figure 1: Technology cycle and financial needs**



**Source:** Nunez Ferrer et al. (2011), SET-Plan, from concept to Successful Implementation', CEPS Task Force Report, May 2011p.24

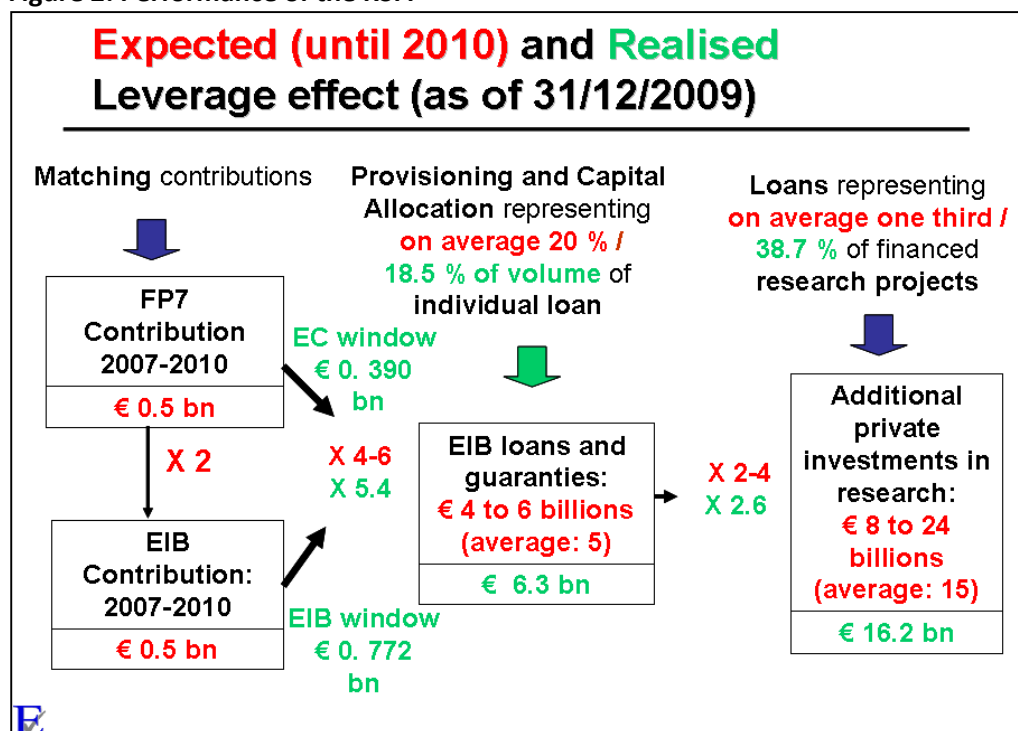
Against this background, the European Risk Sharing Finance Facility (RSFF) was launched in 2007 by the EIB and the European Commission. It is a debt-based financial instrument which is part of the 7<sup>th</sup> Framework Programme for Research (FP7). It aims to improve access to loans by investors in research, development and innovation (RDI)<sup>23</sup> for which the credit risk is perceived to be too high or of sub-investment grade. The RSFF can provide the necessary 'bridge financing' to bring RDI results to a stage which attracts private venture capital by sharing risks with the private sector.

The EIB and the European Commission each provides € 1 billion as a capital cushion to cover risks incurred by potential projects. With a leverage factor of 1 to 10, the Facility is expected to offer debt financing of approximately €10 billion of loans. It complements more conventional sources of finance such as grants, equity and loans. The RSFF has shown convincing results to date. By the end of 2010, loans worth almost €6.3bn were signed, with €3.5 billion disbursed (see Figure 2). The total EU budgetary commitments amounted to around €0.5 billion<sup>24</sup>. In the area of energy, projects accounted for 15 per cent of RSFF signatures. For high risk, profitable projects, the EIB also offers EIF (European Investment Fund) loans more appropriate as venture capital.

<sup>23</sup> R&D is too restrictive as a term and funding is in fact mainly directed to innovation in the sense of scaling up and integrating R&D results.

<sup>24</sup> EC (2011), A framework for the next generation of innovative financial instruments – the EU equity and debt platforms, Communication from the Commission, (COM(2011)662), 19.10.2011, Brussels

Figure 2: Performance of the RSFF



Source: European Investment Bank (2010)

The RSFF has been positively evaluated by the EIB<sup>25</sup> and in a mid-term review of FP7<sup>26</sup>. The latter calls for the RSFF to improve its coverage of certain target groups (e.g. SMEs, research infrastructures, universities) by expanding the risk capital from the EU and by increasing funds allocated to the RSFF during the current financial period. It also recommends potentially putting in place a 'renewed RSFF' for the post-2013 period with a budget of €5 billion (which could potentially leverage up to €50 billion in loans, if unused risk finance is reused). When banks and other financial institutions were reducing access to finance for high risk investments in RDI as a consequence of the financial crisis, the role of the RSFF became even more important as it was one of the few financial instruments available to innovative firms and organisations.<sup>27</sup>

The Facility is open to all RDI projects and is not currently aimed specifically at innovations in the areas of climate change and energy. Nonetheless, given its characteristics it provides a particularly appropriate model for the energy sector where returns to investments are high but the costs, time lags and risks are often also too high, in particular for renewables, to transpose research results to commercially viable and profitable technologies. Given the commercial nature of RSFF, the reduction of risks and the loan risk premiums offered for investors, it is thus an appropriate instrument for the sector. The RSFF is also attractive as it exempts beneficiaries from the stringent nature of FP7 agreements and in particular from the intellectual property rights (IPR) obligations. By offering support which is not grant

<sup>25</sup> European Investment Bank (2010), Evaluation of Activities under the Risk Sharing Finance Facility (RSFF), Operations evaluation unit, Luxembourg.

<sup>26</sup> European Commission (2010), Interim Evaluation of the Seventh Framework Programme, Report of the Expert Group, Final Report 12 November 2010.

<sup>27</sup> EC (2011) A framework for the next generation of innovative financial instruments - the EU equity and debt platforms, Communication from the Commission, (COM(2011)662), 19.10.2011, Brussels

based, the RSFF reduces the costs to the public sector and distributes responsibility in the financing of energy projects between the private and public sectors. For projects where risks are particularly high and an RSFF contribution of 50 per cent of costs is not sufficient, the possibility exists to blend it with grants.

In making its decisions, the EIB (at least in theory) takes into account the full economic rate of return (which includes social benefits of projects), rather than the internal rate of return (which covers financial returns). This means that projects of higher social value would rank higher than those with a higher profit but lower total social value. However, even if such an approach favours green technologies, the RSFF does not have a mechanism to ascertain whether the projects it finances do de facto have an inability to raise private capital and thus cannot determine whether its operations fulfil the additionality criteria of EU operations.<sup>28</sup> Moreover, the Impact Assessment accompanying the SET Plan also mentions the risk that technologies which have an industrial chain which is ready to absorb the increased investment (e.g. CCS, wind or solar)<sup>29</sup> could crowd out technologies at an earlier stage of the supply chain (e.g. ocean wave energy). There is thus a risk that profitable ventures use the resources of the RSFF unnecessarily. Such issues should be taken into consideration in future developments of the RSFF.

### **2.3 Loan guarantee instruments and EIB financing in the transport sector**

The Loan guarantee instrument for Trans-European Transport Networks (TEN-T) projects (LGTT) was launched in July 2008. It is a forerunner of the RSFF and works in a similar manner but targets projects in the transport sector. No equivalent instrument was created for the energy and ICT areas as at the time, energy was not a Trans-European priority and ICT was developing without the need for additional support. The LGTT combines a contribution by the EIB of €500 million with €500 million by the European Commission. It provides a loan guarantee for loans to single purpose vehicles set up for specific transport projects so as to cover revenue risks in the early operating stage (7 years) where traffic revenues are lower than forecasted. The leverage factor for infrastructure (which is less risky and more predictable than RDI investment) is between 1 to 20; thus implying a potential loan value of €20 billion. Six contracts have been signed to date. The majority of projects have been motorway projects, although there has been one railway project – the Tours-Bordeaux project.

The LGTT has not been flexible enough as an instrument to cover the needs in the transport sector.<sup>30</sup> Take-up of the instrument has not been as high as expected. Its focus on user-pay based projects has meant that most of the projects supported have been motorways. The LGTT was launched in July 2008 just as the financial crisis was beginning. This economic context acted as a further factor limiting the effect of the instrument. Traditional financiers have been affected by the financial crisis and the credit market has been reduced. In response to these identified short-comings, the European Commission proposed a new EU

---

<sup>28</sup> European Commission (2010), Interim Evaluation of the Seventh Framework Programme, Report of the Expert Group, Final Report 12 November 2010.

<sup>29</sup> European Commission, 'Impact Assessment Accompanying document to the Communication on Investing in the Development of Low Carbon Technologies (SET-Plan) Brussels, 7.10.2009, SEC(2009) 1297, p.42

<sup>30</sup> Information draws on discussions during bilateral meetings with European Commission officials

project bond initiative as a potential solution to avoid a financial shortfall (see chapter 3). Building on the experience with the LGTT, the Commission decided to launch a pilot phase of the initiative under the current financial framework so as to ease out any issues in design of the new instrument, increase market awareness etc. This is expected to pave the way for a risk sharing instrument for loan and project bond financing of infrastructure projects once the Connecting Europe Facility comes into force from 2014.<sup>31</sup> Given that the LGTT targets infrastructure loans in the transport sector, for very narrowly defined risks and only during the early operational phase of projects, the project bond initiative is expected to complement it with regard to the type of financing, sectors and project phases.<sup>32</sup>

In addition to the LGTT, the EIB has expanded its role as financier for the TEN-T over the years, providing loans of €45.5 billion between 2005 and 2009<sup>33</sup>. This represents a 3 per cent share of the estimated investment needs for the 2007-2013 TEN-T Programme (which is €1.5 trillion)<sup>34</sup>. Part of the EIB loan operations are channelled through the Structured Finance Facility (SFF) which offers specific financial support for riskier parts of projects and thus helping to attract other financiers. The SFF reached €5.8 billion in 2009<sup>35</sup>.

## **2.4 Financial engineering under Cohesion Policy: The example of JESSICA**

In the 2007-2013 programming period, a number of initiatives were developed by the European Commission in co-operation with the EIB and other financial institutions. These instruments were designed to complement traditional grant-based financing, attract private resources and consequently increase the financial capacity of managing authorities for investment. Two initiatives promote financial engineering instruments (JEREMIE and JESSICA) and two (JASPERS and JASMINE) operate as technical assistance facilities<sup>36</sup>.

This section will examine the Joint European Support for Sustainable Investment in City Areas (JESSICA) which is an initiative of the European Commission in cooperation with the EIB and the Council of Europe Development Bank (CEB). Through JESSICA, Member States may choose to use some of their European Regional Development Fund (ERDF) allocations as 'revolving funds'. The notion of revolving funds is that the funds are replenished, i.e. managing authorities receive back the capital invested, including revenue generated throughout the operation which can then be reinvested in new urban development projects.

---

<sup>31</sup> EC (2011), A growth package for integrated European infrastructures, Communication from the Commission, (COM(2011)676), 19.10.2011, Brussels

<sup>32</sup> EC (2011), Impact Assessment accompanying Communication on a pilot for the Europe 2020 Project Bond Initiative and the proposal for a Regulation establishing a Competitiveness and Innovation Framework Programme (2007-2013) and Regulation (EC) No 680/2007 laying down general rules for the granting of Community financial aid in the field of the trans-European transport and energy networks, (SEC(2011)1237), 19.10.2011, Brussels

<sup>33</sup> EIB (2010), Trans-European transport networks (TENs) again draw more EIB loans, Annual News Conference 2010 y Briefing Note No 07

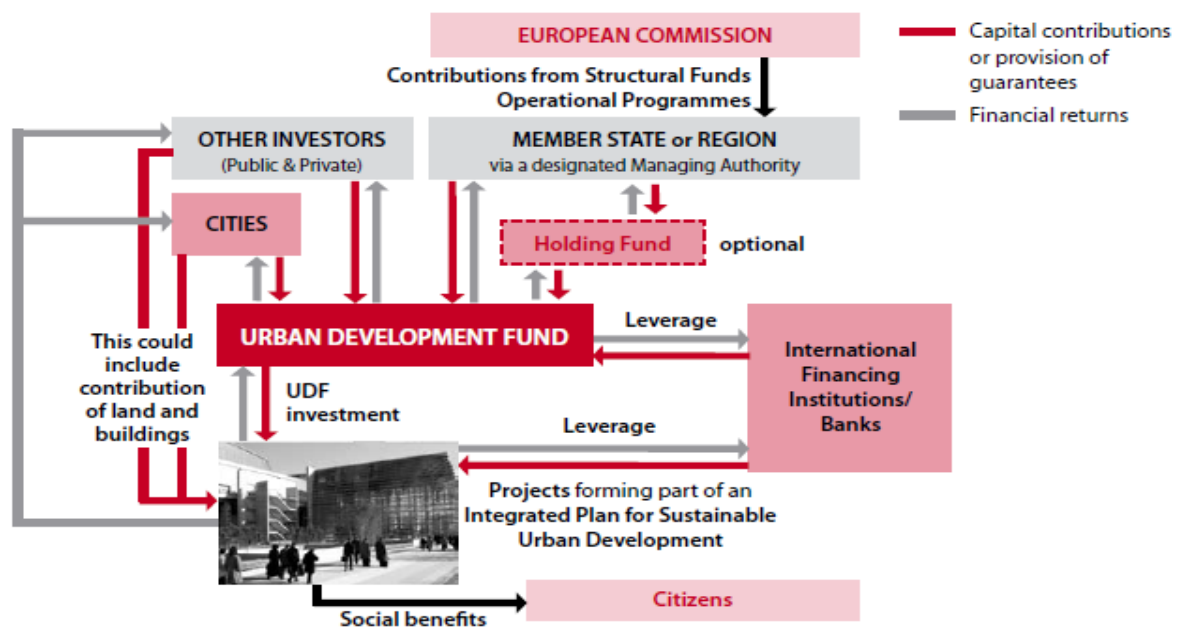
<sup>34</sup> EC (2011), White Paper: Roadmap to a single European Transport Area – Towards a competitive and resource efficient transport system, (COM(2011)144)

<sup>35</sup> Steer Davies Gleave (2011), Mid-term evaluation of the TEN-T Programme (2007-2013), Final Report, March 2011 prepared for the European Commission

<sup>36</sup> DG REGIO, Special support instruments, [http://ec.europa.eu/regional\\_policy/thefunds/instruments/index\\_en.cfm](http://ec.europa.eu/regional_policy/thefunds/instruments/index_en.cfm)

The scheme is implemented by allocating ERDF funding to Urban Development Funds (EDFs), which can be invested in public-private partnerships or other projects that are part of an integrated urban development plan. Another option is to create holding funds which can then invest in several UDFs. Investments can take the form of loans, guarantees and/or equity (see Figure 3). The choice of instrument usually depends on the type and development phase of the project to be financed. A loan, for example, requires periodic servicing of interest and repayment which means that it may be most suitable for low-risk projects that generate periodic cash inflows such as energy efficiency investments in buildings.<sup>37</sup> One of the advantages of such instruments is that they enable managing authorities to delegate part of their tasks to financial experts and engage with the private and banking sector in the implementation of sustainable urban development projects. Further to this, the revolving nature of the funds is considered to provide stronger incentives for the successful implementation of a project as the expected return will be re-used for new investments. The success of UDFs depends on achieving the right balance between low and high risk projects.

**Figure 3: Investment structure of JESSICA**



Source: EIB and EC

Energy efficiency is one of the priority areas supported by JESSICA in urban areas. Typical projects focus on energy-saving improvements of existing private and public housing stock, public infrastructure (e.g. street lighting) and/or installing alternative energy (e.g. photovoltaic on the roofs of existing properties). The provision of loans is considered the most suitable instrument for such types of projects. The main incentives include low-interest rates, lower collateral requirements and longer periods of redemption (10 to 20 years). Due to the potentially high collateral value of existing buildings, it is possible to provide a loan for up to 80-90 per cent of the total investment. Regular income from savings

<sup>37</sup> European Investment Bank and European Commission (2010) JESSICA – UDF typologies and governance structures in the context of JESSICA implementation.  
[http://ec.europa.eu/regional\\_policy/archive/funds/2007/jii/doc/pdf/jessica/udf\\_typologies.pdf](http://ec.europa.eu/regional_policy/archive/funds/2007/jii/doc/pdf/jessica/udf_typologies.pdf)

in energy costs is generated during the implementation of energy efficiency projects. This cash flow permits a constant repayment of the loan to the UDF. The important aspect here is that the investment itself can be seen as an asset in its utilisation stage.

The implementation of JESSICA is a work in progress and it is still too early to assess its effectiveness. Nonetheless, some challenges can be identified and lessons drawn from experiences to date. JESSICA began in late 2007-early 2008 when many national/regional Operational Programmes (OPs) had already been adopted. Its late launch was a key impediment to take-up of the instrument as it could not be properly integrated in the programming process of OPs. Initially, managing authorities were reluctant to move away from grants to unfamiliar financial engineering instruments as the regulatory framework did not provide sufficient provisions and guidance on how to implement these instruments. Understanding how the instruments work and establishing UDF and fund structures proved to be rather intensive in terms of time and administrative burdens. Due to limited institutional capacity to deal with these instruments, many managing authorities chose to implement them through holding funds managed by the EIB. This added another layer of administration and took up more time and financial resources, but was also helpful in terms of bringing in necessary expertise. With increasing experience, the appetite to use such instruments has grown, particularly in new Member States where similar schemes were not widely established at national level.<sup>38</sup>

By March 2011, €1.65bn of the ERDF had been committed to 19 JESSICA funds in 11 Member States. This includes 15 holding fund agreements signed with the EIB (totalling €1.49bn); one holding fund set up with a national financial institution (Estonia); and three UDFs established directly (Brandenburg, East Midlands of England and Wales). Seven funds have an energy component and are scheduled to invest approximately €600m in energy efficiency and renewable energy projects.<sup>39</sup> However to date, actual projects have only been implemented in Lithuania, Poland and Germany (see Box 1).

---

<sup>38</sup> Information draws on discussions during bilateral meetings with European Commission officials

<sup>39</sup> Lee, F. (2011) JESSICA and energy efficiency. Presentation at the European sustainable energy week. EIB. 14.4.2011, Brussels,

### Box 1: JESSICA in practice – A case from Lithuania

In 2009, the Lithuania government established a €227m JESSICA holding fund, managed by the EIB, as a way to mobilise funds from the ERDF (with €127m), national funding (approximately €100m) and commercial banks (expected contribution €20-40m) to promote energy efficiency measures in multi-apartment buildings. In 2010, the first loan agreement was signed between the EIB and Šiaulių bankas, in which the latter commits to provide 20 year, low interest loans (3 per cent for the entire loan period) for the total amount of €6 million to homeowners. The goal is to support the renovation of 1000 buildings between 2010 and 2015. By April 2011, approximately 100 projects and five project loan agreements (amounting to more than €1m) had been approved. These projects are expected to positively contribute to achieving the EU's 20 per cent target for energy efficiency as well as national refurbishment plans for 2020. After the refurbishment, it is estimated that the average energy savings for a single house will be approximately 50 per cent or 125 MWh a year. Some success factors behind the Lithuanian experience include: political support, huge demand for renovation of the existing housing stock and the inability of national financial schemes to adequately respond to this issue, as well as the use of established national institutions such as the housing and urban development agency (HUDA).

#### Sources:

EC (2010) First JESSICA fund loan agreement signed with Lithuania's Šiaulių bankas, Press release, 31/5/2010, Brussels <http://europa.eu/rapid/pressReleasesAction.do?reference=BEI/10/87&type=HTML>;  
Lee, F. (2011) JESSICA and energy efficiency. Presentation at the European sustainable energy week. EIB. 14.4.2011, Brussels, <http://www.cda.nl/Upload/Nistelrooij/2011%2004%2018%20Frank%20Lee%20JESSICA%20and%20Energy%20Efficiency%2014%2004%202011v2.pdf>  
Serbenta, V. JESSICA holding fund for Lithuania – delivering energy efficiency improvements in the housing sector. Housing and Urban Development Agency. <http://www.eib.org/attachments/serbenta-jessica.pdf>  
Bilateral meetings with European Commission officials

## 2.5 ELENA

Under the Intelligent Energy Europe programme, the European Local Energy Assistance technical assistance facility (known as ELENA) has been set up in cooperation with the EIB. The facility provides grants for technical assistance for the development of investment programmes and facilitates access to EIB finance or finance from other banks, thereby improving the bankability of projects. The focus is on fostering sustainable energy actions at the local level. The main beneficiaries of the facility are local and regional authorities, other public entities, or groupings of such entities, including those subscribing to the Covenant of Mayors.

In 2009 and 2010, ELENA had an annual budget of €15 million.<sup>40</sup> The ELENA-EIB facility aims to increase experience in developing investment programmes of a certain size, normally above €50 million.<sup>41</sup> In 2011, the facility was extended to other banks such as KfW. The

---

<sup>40</sup> Goldmann, R. (2010) The ELENA Facility, EIB, Presentation at the ManagEnergy Capacity Building Workshop on the ELENA Facility, 24.3.2010, Brussels, [http://www.managenergy.net/lib/documents/84/original\\_goldmann.pdf](http://www.managenergy.net/lib/documents/84/original_goldmann.pdf)

<sup>41</sup> EIB (2009) FAQ – Programme development support from ELENA,

ELENA-KfW instrument targets smaller beneficiaries for projects with a budget of less than €50 million. ELENA-KfW consists of two innovative and complementary financing schemes: global loans to local participating financial intermediaries (PFIs) and carbon crediting as a new financing element.<sup>42</sup> Further extension of ELENA to the CEB is also envisioned which, similar to the initiative with KfW, will target smaller projects with a social housing element.<sup>43</sup>

ELENA provides technical support for various activities that are necessary to prepare, implement and finance an investment programme/project, e.g. through feasibility and market studies, structuring of programmes, business plans, energy audits, preparation of tendering procedures and contractual arrangements and project implementation units. The programmes include projects in energy efficiency and renewable investments in public and private buildings including social housing and street and traffic lightning, investments in renovating, extending or building new district heating/cooling networks, urban public transport to support increased energy efficiency and integration of renewable energy sources e.g. through smart grids, information and communication technology infrastructure for energy efficiency. An example of ELENA in practice is provided in Box 2.

Specific criteria which guide the project selection process include the:<sup>44</sup>

- Eligibility of the beneficiary;
- Eligibility of the investment programme;
- Potential bankability of the investment programme;
- Financial and technical capacity to implement an investment programme;
- Contribution to the EU 20-20-20 climate and energy targets;
- Leverage (the cost of the investment to be supported must be at least 25 times the ELENA contribution);
- Value added for the EU, in terms of EU policies in particular energy policies; and
- The use of state of the art technologies

Further to these criteria, projects should respond to the needs of regional and local authorities, should have a positive impact on SMEs and contribute to the dissemination of good practices and new technologies across the EU. Justification should also be provided to show that ELENA is the most suitable instrument for the implementation of a project, thereby ensuring that other options for financing are not crowded out.

---

[http://www.eib.org/attachments/documents/elena-faq\\_en.pdf](http://www.eib.org/attachments/documents/elena-faq_en.pdf)

<sup>42</sup> Feist, J. A new KfW-Facility in favour of sustainable investments of small and medium sized municipalities. KfW Bankengruppe, [http://www.eumayors.eu/IMG/pdf/Johannes\\_Feist\\_KfW.pdf](http://www.eumayors.eu/IMG/pdf/Johannes_Feist_KfW.pdf)

<sup>43</sup> Doubrava, R., European Local Energy Assistance – ELENA facility, [http://www.eumayors.eu/IMG/pdf/Roman\\_Doubrava\\_ELENA\\_DG\\_ENER.pdf](http://www.eumayors.eu/IMG/pdf/Roman_Doubrava_ELENA_DG_ENER.pdf)

<sup>44</sup> EIB, ELENA technical assistance, [http://www.eib.org/attachments/documents/elena-presentation\\_en.pdf](http://www.eib.org/attachments/documents/elena-presentation_en.pdf)



### **Box 2: ELENA in practice – An example from Spain**

In the Barcelona Province of Spain, ELENA contributed approximately €2m to an investment programme for the implementation of energy efficiency projects through the involvement of energy service companies (ESCOs) and the development of public-private partnerships to implement renewable energy investments in public buildings. Between 2010 and 2013, projects are to target the installation of photovoltaic plates on the roofs of public buildings, retrofitting of public lighting and traffic lighting systems and the refurbishment of municipal buildings. ELENA promotes and analyses potential project applications by municipalities and provides technical support to municipalities in the implementation of the projects. The leverage factor for this operation is estimated to be between 50 and 250. In the best case scenario, it is expected that an additional €500m will be mobilised for the investment programme. Expected outcomes include 114 GWh/y PV electricity production, 280 GWh/y energy savings, 185.000 tCO<sub>2</sub>eq/y CO<sub>2</sub> reduced, 3,000 jobs created/sustained in PV installation and maintenance and 2,000 jobs created/sustained in energy efficiency.

**Source:** ELENA operation in Barcelona Province, Spain. Factsheet.

<http://www.eib.org/attachments/documents/rediba.pdf>

## **2.6 EU equity instruments: The Marguerite Fund**

The 2020 European Fund for Energy, Climate Change and Infrastructure (known as the Marguerite Fund) is a pan-European equity fund for infrastructure investments in the transport, energy and renewables sectors. It was set up in December 2009 following a request by the European Council as part of the European Economic Recovery Plan. The European Commission provides €80 million in risk capital out of the TEN-T budget to the fund. Other investors are the EIB and public banks from a number of Member States, the fund is open to participation by other public as well as private investors. The target fund size is €1.5 billion (€710 million has been raised to date) which is to be invested within four years of the date of final close (expected to be the end of 2011).<sup>45</sup> Investors in the fund also plan to establish a debt co-financing initiative of up to €5 billion so that, in addition to the equity investment, individual projects could also be supported with debt capital<sup>46</sup>.

The fund provides equity or quasi equity finance for priority infrastructure in the EU. For instance, the fund has endeavoured to invest a total sum equivalent to 3.5 times the EU contribution to TEN-T projects.<sup>47</sup> The minimum size of transactions is €10 million and maximum size is 10 per cent of the total size of the fund. Although the fund may invest in brownfield projects where modernisation, retrofitting, capacity enhancement or similar

---

<sup>45</sup> Joint press release, Europe's leading public financial institutions launch "Marguerite", the 2020 European Fund for Energy, Climate Change and Infrastructure, 4.12.2009, Brussels, [http://www.margueritefund.eu/news/BEI-09-242\\_EN.PDF](http://www.margueritefund.eu/news/BEI-09-242_EN.PDF)

<sup>46</sup> Marguerite Fund, Key features, <http://www.margueritefund.eu/fundoverview.php?pageid=8> [Accessed 4.10.2011]

<sup>47</sup> EC (2011) A framework for the next generation of innovative financial instruments - the EU equity and debt platforms, Communication from the Commission, (COM(2011)662), 19.10.2011, Brussels

investments are necessary,<sup>48</sup> its main focus is on greenfield investments within three target sectors<sup>49</sup>:

- *Transport*, in particular trans-European transport networks (TEN-T) (i.e. road, rail, inland waterway, seaports, airports, interconnection points between modal networks), expected to make up to 30-40 per cent of the total size of the fund;
- *Energy*, in particular trans-European energy networks (TEN-E) (i.e. electricity and gas transportation, interconnection, storage and infrastructure, distribution, electricity/gas/oil production, carbon capture and storage), expected to make up to 25-35 per cent of the total fund size; and
- *Renewable energies* (i.e. sustainable energy production, clean transport infrastructure, energy distribution and systems for hybrid transport, wind, solar, geothermal, biomass, biogas, hydro, waste-to-energy projects) expected to make up to 35-45 per cent of the total size of the fund.

The fund has yet to undertake any investment activities (this is expected to begin towards the end of 2011), thus it is too early to evaluate its experiences. As has been the case with the LGTT, the need to prepare the ground for implementation of the fund in order to have sufficient stakeholder awareness and acceptance will be critical.<sup>50</sup> What will be interesting to assess once activities begin, will be the types of investments supported by the fund and how the fund's objective<sup>51</sup> to contribute to the development of the TEN-T and TEN-E networks and its objective to contribute to the EU's 20-20-20 climate and energy targets in particular by supporting renewable energy technologies are balanced. As an equity fund, Marguerite is seen to be complementary to the Commission's recent proposal for the project bond initiative which would aim to facilitate project bond finance.<sup>52</sup> Its relationship with the project bond initiative in terms of the combined potential of such financial instruments in the transport and energy sectors is worth exploring further.

## 2.7 European Energy Efficiency Fund (EEEF)

The relatively new, European Energy Efficiency Fund (EEEF) was launched on 1 July 2011 to provide both financial support and technical assistance for commercially viable energy efficiency and renewable energy projects at the local and regional level. The fund is the central part of a new sustainable energy facility agreed by the European Parliament and the

---

<sup>48</sup>Marguerite Fund, Key features, <http://www.margueritefund.eu/fundoverview.php?pageid=8> [Accessed 4.10.2011]

<sup>49</sup>Marguerite Fund, Core Sectors – Transport, energy and renewables, <http://www.margueritefund.eu/fundoverview.php?pageid=6> [Accessed 4.10.2011]

<sup>50</sup>EC (2001), Impact Assessment accompanying Communication on a pilot for the Europe 2020 Project Bond Initiative and the proposal for a Regulation establishing a Competitiveness and Innovation Framework Programme (2007-2013) and Regulation (EC) No 680/2007 laying down general rules for the granting of Community financial aid in the field of the trans-European transport and energy networks, (SEC(2011)1237), 19.10.2011, Brussels

<sup>51</sup>Marguerite Fund, Fund rationale – Marguerite: a unique concept in difficult economic times, <http://www.margueritefund.eu/aboutus.php?pageid=4> [Accessed 4.10.2011]

<sup>52</sup>EC (2001), Impact Assessment accompanying Communication on a pilot for the Europe 2020 Project Bond Initiative and the proposal for a Regulation establishing a Competitiveness and Innovation Framework Programme (2007-2013) and Regulation (EC) No 680/2007 laying down general rules for the granting of Community financial aid in the field of the trans-European transport and energy networks, (SEC(2011)1237), 19.10.2011, Brussels

Council as a means of using unspent funds under the European Energy Programme for Recovery (EEPR).<sup>53</sup>

Given that it uses funds left over from the EEPR, the EEEF is rather limited in size with an initial volume of €265 million. However, by attracting further public and private investors, it aims to raise the total volume of the fund to approximately €700 million, thus using limited EU funds to leverage additional financing. The European Commission is investing €125 million in the fund and the EIB is committing €75 million. Further commitments are from the Cassa Depositi e Prestiti (IT) and by the fund manager, Deutsche Bank (DE).<sup>54</sup> About €20 million will be made available as grants for project development services (technical assistance) for projects that receive financing from the fund. In contrast to the technical assistance provided under the ELENA facility (see above), assistance offered under the EEEF will target investment projects that can be smaller than €50 million. Support for awareness-raising activities (€1 million) through the European PPPs Expertise Centre for national/regional authorities managing cohesion/structural funds in the field of sustainable energy is also envisaged.<sup>55</sup>

The EEEF focuses on investments at the local and regional level by municipal, local and regional authorities as well as public and private entities acting on their behalf (e.g. PPPs, utilities, public transport providers, energy service companies (ESCOs), social housing associations etc.). The fund offers a range of tailor-made financial products such as convertible debt, junior and senior loans, guarantees or equity participation as well as leasing structures and forfeiting loans<sup>56</sup>, thus bringing additional resources, to those provided by local/private investors and sharing market risks. The provision of forfeiting agreements through the EEEF could also open up a new stream of financing for ESCOs. Under an EEEF loan to support upfront costs and offer better access conditions to an ESCO, the ESCO could sell part of its receivables to the EEEF which are secured by the guaranteed energy savings of the energy performance contract (EPC). Thus, the EPC (receivable) is used as collateral to secure the EEEF loan, if the ESCO does not deliver, the EEEF is covered by the EPC, and the fund does not bear the technical risk.<sup>57</sup>

Given its recent launch, a project has yet to be launched under the EEEF. The first project has been approved by the management board and is currently awaiting final signature. A number of project applications have been received and more projects are expected to be

---

<sup>53</sup> Regulation (EU) No 1233/2010 of the European Parliament and of the Council of 15 December 2010 amending Regulation (EC) No 663/2009 establishing a programme to aid economic recovery by granting Community financial assistance to projects in the field of energy

<sup>54</sup> EIB, European Energy Efficiency Fund EEEF launched, 1.7.2011, <http://www.eib.org/about/press/2011/2011-098-european-energy-efficiency-fund-eeef-launched.htm?lang=en>

<sup>55</sup> EC Press Release, Launch of the new European Energy Efficiency Fund (EEE– F) of the European Energy Programme for Recovery (EEPR), Frequently Asked Questions, 1.07.2011, Brussels

<sup>56</sup> EEEF, Direct investments – What type of investments can the fund make?, <http://www.eeef.eu/direct-investments.html>

<sup>57</sup> Based on discussions at workshop on ‘Exploring the potential of new financial instruments for climate change’, 11 October 2011, Brussels

initiated towards the end of 2011/early 2012. The EEEF is expected to cover projects in the following areas:

- *Energy saving and energy efficiency investments* – expected to make up 70 per cent of the investment portfolio and to include *inter alia* investments in public and private buildings, combined heat and power, local infrastructure, technologies;
- *Small and medium-scale renewable energy projects* – expected to make up 20 per cent of the investment portfolio and to include *inter alia* distributed generation from local renewable energy sources to medium and low voltage distribution networks, smart-grids, energy storage, decentralised energy sources, micro generation from renewable energy sources, various technologies);
- *Clean urban transport* – expected to make up 10 per cent of the investment portfolio and to include investments in *inter alia* public transport, electric and hydrogen vehicles, substitution of oil by alternative fuels, development of vehicles which consume less energy and generate fewer pollutant emissions)<sup>58</sup>.

General criteria to be met by projects financed by the EEEF are set out below:<sup>59</sup>

- Investments must achieve at least 20 per cent primary energy savings for energy efficiency projects (for projects in the building sector, a higher percentage is required) and 20 per cent reduction of CO<sub>2</sub> emissions for renewables and transport projects;
- Specific criteria, e.g. economic viability, may apply for some technologies;
- Public authorities requesting financing should have concrete objectives to mitigate climate change (i.e. increasing energy efficiency) and multi-annual strategies to do so;
- The fund will only consider proven technologies;
- The fund should seek to invest in projects which enhance the use of energy service companies providing guaranteed energy savings; and
- Investments should be aligned with relevant EU legislation. For renewable energy projects using biomass compliance with the renewable energy Directive 2009/28/EC is essential.

Measuring the CO<sub>2</sub> reduction is a precondition to obtain EEEF funding and project partners are required to report to the Carbon Efficiency Management - a programme designed for CO<sub>2</sub> measurement accessible through the EEEF website<sup>60</sup>. The criteria for energy savings/CO<sub>2</sub> reductions are considered to be a minimum and in practice, savings realised may be higher than those stipulated. The relatively low criteria were selected so as not to deter potential investors by setting a high benchmark upfront.<sup>61</sup>

---

<sup>58</sup> EEEF, Investment categories, <http://www.eeef.eu/investment-categories.html>

<sup>59</sup> EEEF, What are the key eligibility criteria for direct investments?, <http://www.eeef.eu/direct-investments.html> [Accessed 5.10.2011]

<sup>60</sup> EEEF, Technology/CO<sub>2</sub> measurement, <http://www.eeef.eu/technology-co2-measurement.html> [Accessed 5.10.2011]

<sup>61</sup> Based on discussions at workshop on 'Exploring the potential of new financial instruments for climate change', 11 October 2011, Brussels

## 2.8 National initiatives

In addition to EU and EIB instruments, there are a number of initiatives being carried out by various national financial institutions which promote investments related to climate change and energy both within the EU and externally. One such example, which is considered among the most successful, is the German KfW bank which successfully uses market instruments to increase energy efficiency in buildings in a cost-effective way (see Box 3). Other examples of national initiatives include the National Fund for Environmental Protection in Poland (see Box 4) and the planned Green Investment Bank (GIB) in the UK<sup>62</sup>.

### **Box 3: Energy efficiency promotion at national level using market tools - The case of KfW**

One of the most successful examples of national schemes to promote energy efficiency is the programme by the KfW Förderbank (promotional Bank) which is part of the publically owned German KfW Bankengruppe. In 2008, KfW Förderbank committed €33.8 billion for housing and environmental protection. The energy efficiency programme set national standards for energy efficiency for the whole country with certification based on the KfW system of ranking provided for buildings. Germany has introduced legal obligations for energy efficiency backed by KfW's financial operations. Rather than using grant support, the state injected funding in KfW to provide loans for energy efficiency at lower interest rates. The loans are channelled through local banks. Government support is used as a risk mitigation mechanism, making energy efficiency investments attractive with lower interest rates.

Due to the support of the programme, one million buildings were refurbished and another 400,000 high energy efficient buildings were built. It has been estimated that the scheme has led to the creation of 240,000 jobs per year since 2004. The total investment in energy efficiency in buildings in Germany between 2004 and 2009 was estimated at €54 billion. Despite its success, there is still some way to go to. The housing stock is composed of 39 million housing units, 80 per cent of them built before 1979. Only 9 million housing units met the minimum requirement under German law in 2009, which demonstrates the importance of expanding such programmes.

**Source:** Source: Power A., M. Zulauf (2011), 'Cutting Carbon Costs: Learning from Germany's Energy Saving Programme', What Works Collaborative, Building Knowledge & Sharing Solutions for Housing and Urban Policy.

---

<sup>62</sup> Department for Business, Innovation and Skills (2011), Green Investment Bank, <http://www.bis.gov.uk/greeninvestmentbank> [Accessed 15.12.2011]

#### **Box 4: Financing environmental protection in Poland – The case of the National Fund**

The Polish National Fund for Environmental Protection and Water Management was established in 1989 and together with the voivodeship (provincial) funds for environmental protection form the central pillar of the Polish system of financing for environmental protection projects. The Fund draws its revenues from environmental fees and penalties. Additional revenue is generated from the sale of surplus Polish GHG emissions within the Green Investment Scheme (GIS) and interest from loans granted. The revenue generated can only be spent on environment protection projects. The Fund offers various financial instruments tailored to the project/beneficiaries needs, e.g. preferential loans, subsidies, blending loans and grants.

The Fund supports projects which seek to eliminate water, air and soil pollution. Investments related to energy efficiency and renewable energy sources are special priorities. Projects under the GIS programme seek to limit and avoid CO<sub>2</sub> emissions, encourage energy savings, promote the production of thermal energy and introduce energy from renewable wind energy sources to the National Electric Power System. Over the period 1989-2010, the Fund concluded more than 16,000 contracts allocating more than PLN 30 billion (approx. €6.7 billion). The total value of the projects co-financed from the Fund exceeded PLN 86 billion (approx. €21 billion).

In recent years, the Fund has expanded its cooperation with voivodeship funds as well as with the banking sector and industry. It has also launched various new co-financing activities which seek to *inter alia* reduce GHG emissions, limit energy losses in enterprises and public utility buildings and finance energy saving investments. In September 2010, the Fund launched a national programme of subsidies for the purchase and assembly of solar collectors. To date, almost 15000 applications have been received and 11 409 beneficiaries have received a total subsidy of PLN 73 million. The National Fund has also recently announced plans for a program on smart energy networks in 2012 with a planned budget of PLN 300 million.

**Source:** National Fund for Environmental Protection and Water Management, (2011) Brochure on Renewable source of financing, and bilateral discussions with experts from the National Fund

While such practices should be encouraged in other Member States, it is important to note that different models will be suited to different national contexts. For example, the KfW scheme in Germany is heavily funded by public money. Such a model may not necessarily be suitable in other Member States, where other approaches may be more appropriate given national /local circumstances. The role of EU financial instruments in the context of existing national schemes should be carefully considered with a view to avoiding duplications of action and/or possible crowding out effects. The added value of an EU instrument could be undermined if it does not complement existing national schemes. Moreover, in cases which involve national banks, **EU state aid rules**<sup>63</sup> apply.

---

<sup>63</sup> State aid is an advantage in any form conferred on a selective basis to undertakings by national public authorities. These are generally prohibited by the Treaty on the Functioning of the European Union (TFEU). However, in some circumstances, government interventions are deemed necessary for a well-functioning and equitable economy, as long as they do not distort competition and trade within the EU. The Treaty therefore leaves room for a number of policy objectives for which state aid can be considered compatible. The Commission has the power to approve the implementation of aid measures by Member States and to recover incompatible state aid. A series of legislative acts provide for a number of exemptions, and seek to ensure that state aid is monitored and assessed.

Nationally administered schemes fall under EU state aid rules. If support falls under state aid rules, the value of the subsidy needs to be estimated and kept under the ceiling established in EU state aid rules. This limits the level of subsidy, be it a grant or an interest rate subsidy. For example, the establishment of structures for the JESSICA Programme under Cohesion Policy was considerably delayed due to EU state aid rules. Another important question relates to whether the beneficiary or the financial intermediary benefits from interest rate subsidies. It is possible that the financial intermediary may not transfer the whole benefit of the subsidy to the beneficiary thus the state aid goes to the co-investors or financial intermediaries. Past experience has showed that it is fairly difficult to ensure that the interest rate subsidies reach the final beneficiaries.<sup>64</sup>

In 2008, EU state aid guidelines were revised<sup>65</sup> so as to promote renewable energy and to add some areas of renewable energy in the block exception regulation (which excludes from notification those state aids below a certain ceiling of expenditure and/or are considered of important value to the EU<sup>66</sup>). New permitted state aids include aid for environmental studies, aid for cogeneration and district heating, aid for waste management and aid involved in tradable schemes. State aid in the renewable electricity sector can reach up to 100 per cent if contractors are chosen through a bidding process; otherwise it is 80 per cent for small enterprises, 70 for medium enterprises and 60 per cent for large enterprises. Current state aid rules are not clear on energy efficiency or on integrated projects, such as smart grids, which will complicate such projects involving national aid. Moreover, state aid rules on RDI limit aid in industrial and experimental development to 50 per cent and 25 per cent respectively. There is scope for further exceptions under Article 107 of the Treaty which could be applied for those projects considered important to achieve EU objectives.<sup>67</sup>

## **2.9 Public Private Partnerships (PPPs)**

Another mechanism to mobilise private sector financing particularly in the case of infrastructure projects has been the establishment of public private partnerships (PPPs). Since the early 1990s, PPPs have been increasingly used in EU Member States. The percentage of public sector infrastructure investment channelled through PPPs is increasing in all Member States, although it is still at a fairly low level (ranging between 0-10 per cent).<sup>68</sup> PPPs can be situated between 'traditional' public procurement and full private provision. They are considered useful as they spread the public cost of infrastructure over a longer period, improve value for money in public service delivery and can attract the investment of private capital with appropriate user charges. PPPs have generally been used for motorways, but can also be used for other infrastructures. Linking service delivery and payment mechanisms should encourage faster construction and better maintenance over the contract life of the asset. In 2008 the European Commission and the EIB set up the

---

<sup>64</sup> Information draws on bilateral discussions with European Commission officials

<sup>65</sup> European Commission (2008), Community guidelines on state aid for environmental protection, 2008/C 82/01

<sup>66</sup> Commission Regulation (EC) No 800/2008 of 6 August 2008 declaring certain categories of aid compatible with the common market in application of Article 87 and 88 of the Treaty (General block exemption Regulation)

<sup>67</sup> Núñez Ferrer, J., C. Egenhofer, C., M. Alessi, (2011), 'SET-Plan, from concept to Successful Implementation', CEPS Task Force Report, May 2011

<sup>68</sup> OECD (2008) Public-Private Partnerships. In pursuit of risk sharing and value for money. Paris: OECD



European PPP Expertise Centre (EPEC) to support the PPP market in Member States and candidate countries.

While the ‘value for money’ argument has been increasingly recognised in the practice of OECD countries, there is no overwhelming evidence that PPPs open sources of previously untapped finance.<sup>69</sup> They tend to spread the costs of projects for the public sector over time, but not necessarily reduce them. Of course, in areas where the operation is offered to the private sector under concession and a direct pricing mechanism is introduced, the costs of the developed projects can be recovered. The history of infrastructure development in the EU shows however that proper pricing in a number of areas from transport, energy down to water has often not been practiced, thus costs have not been recovered<sup>70</sup>. Under the polluter pays principle, prices should reflect full costs and externalities.

A sufficient transfer of risk to the private sector can be regarded as a prerequisite for ensuring efficiency and good value for money in the case of PPPs. In terms of effectiveness, the risk should be held by the party most able to understand, control and minimise the cost of that risk<sup>71</sup>. For example, avoiding construction delays and cost overruns is considered to be better handled by the private sector. However, the subsequent demand risk may be too high to attract the interest of the private sector. This is particularly the case in public assets and services where demand is independent from private sector activity. The role of motorway maintenance companies in traffic flows is for example very limited. The value for money of a PPP project depends principally on the distribution of risks between the public and private sector. Depending on the project, the optimal level of risk sharing is different. In certain cases, risks are so high and unpredictable that it often requires some risk to be retained by the public sector in order to attract any private sector involvement. This has for example been the primary role of the LGTT facility (see above).

The ability to identify, analyse and allocate risks properly among public and private actors is a key concern for the efficiency and effectiveness of PPPs. Particularly in the case of complex infrastructure developments; risk profiling can be fraught with serious problems stemming partly from the number of different funding sources and the long timespan for yielding returns. Quite often, the actual costs of large-scale infrastructure projects are underestimated. Moreover, risk needs to be distinguished from uncertainties. The first can be measured, whereas the latter cannot. In this sense it is relevant to expand information exchange on practical experiences with the optimal use of PPPs and approaches to risk profiling and risk transfer in EU Member States. The proper analysis of risks should be a key issue in the design of new financial instruments at EU level, for example in the project bond initiative given the profile of institutional investors.

---

<sup>69</sup> OECD (2008) Public-Private Partnerships. In pursuit of risk sharing and value for money. Paris: OECD

<sup>70</sup> Van der Geest W. and Núñez Ferrer J. (2008), “Appropriate Financial Instruments for Public Private Partnership to boost Asia’s cross-border Infrastructural Development”, Asian Development Bank Institute-Flagship Project on Infrastructure and Regional Development, Discussion Paper 12, published by as working document No 281 in May 2011 by ADBI.

<sup>71</sup> EPEC (2011) State guarantees in PPPs. A guide to better evaluation, design, implementation and management. Luxembourg: EIB-EPEC



### 3. FINANCIAL INSTRUMENTS IN THE 2014-2020 MFF

#### 3.1 Overall background

As shown in the preceding section, there is a growing body of knowledge and experience with the use of EU financial instruments, national schemes and public private partnerships for engaging private investors in initiatives and projects of public significance. Given the current economic and financial context, the European Commission has been exploring ways of using the EU budget to further leverage private sources of financing to help meet investment needs in times of fiscal constraint. Expanding the scope and use of financial instruments as a means of attracting additional public and private financing to projects of EU interest has thus become a key issue in preparations and discussions on the 2014-2020 EU multi-annual financial framework (MFF).

Ensuring the **added value** of EU spending is ‘a key test to justify spending at the EU level’<sup>72</sup> and is one of the main principles that will govern future EU expenditure.<sup>73</sup> The EU budget is supposed to finance EU public goods and actions that Member States and regions cannot finance themselves, or where it can secure better results than could have been achieved by funding under national schemes. EU financial instruments can be seen to add value by multiplying the effect of EU funds when those funds are pooled with other funds or include a leveraging effect that enables private finance to be attracted. ‘The impact of the EU budget can be magnified the more it can be used to leverage both funding and financing to support strategic investments with the highest European added value’<sup>74</sup>, thus achieving more with limited EU funds.

Financial instruments are not expected to replace grant financing (which will still be necessary in a range of areas) or private investment. Rather, they are to be used in limited areas to help overcome risk barriers and market failures/imperfections by supporting those projects pursuing EU policy objectives, which although financially viable (in terms of revenue generating capacity etc.), are not (yet) necessarily bankable (i.e. face difficulties in attracting finance from market sources). In such situations, financial instruments can be used to complement regulatory interventions and other means of financing.<sup>75</sup> Given some of the initial financing risks and cash flow barriers facing certain forms of low carbon energy sources, technologies, supporting systems, and infrastructures; supporting such investments with financial instruments could help to overcome risk barriers and market failures/imperfections to support investments with the high EU added value<sup>76</sup>.

---

<sup>72</sup> EC (2010) EU Budget Review. Communication from the Commission, (COM (2010)700), 19.10.2011, Brussels.

<sup>73</sup> EC (2011) A Budget for Europe 2020, Communication from the Commission, (COM (2011)500), 29.06.2011, Brussels.

<sup>74</sup> EC (2010) EU Budget Review. Communication from the Commission, (COM (2010)700), 19.10.2011, Brussels.

<sup>75</sup> EC (2011), A framework for the next generation of innovative financial instruments – the EU equity and debt platforms, Communication from the Commission, (COM(2011)662), 19.10.2011, Brussels

<sup>76</sup> For a more in-depth discussion on defining, applying and measuring European added value in relation to climate change see: Medarova-Bergstrom, K., Volkery, A., (2011), Maximising the European Added Value of EU climate change spending: priorities, criteria and indicators

The definition, basic principles and procedures for the use of financial instruments are to be set out in the new Financial Regulation<sup>77</sup> (currently under discussion in the European Parliament and the Council) and the new delegated act replacing the Implementing Rules. The management and implementation of financial instruments is to be delegated to the EIB and other financial institutions<sup>78</sup>, while maintaining EU policy control. The use of financial instruments is to be conditional on the existence of a market failure/imperfection, demonstration of EU value added, leverage of additional public and private finance, non-distortion of competition and implementation of measures to align the interests of the Commission and the financial institution implementing the instrument.<sup>79</sup> Financial instruments are to be designed so that the risk to the EU budget is limited to the initial EU budgetary contribution, and is thus capped in size. Therefore, financial instruments do not imply additional risk or liability to the EU budget and could also potentially generate proceeds such as interest or return on capital.<sup>80</sup> However, the use of financial instruments may increase risks for Member States which would otherwise have only used EU grant funding (grants do not need to be reimbursed, thus there is no need to raise revenue for loan repayment).

### 3.2 Proposals for common rules and guidance

In October 2011, the Commission presented a Communication on new financial instruments setting out common rules and guidance for equity and debt ‘platforms’.<sup>81</sup> The platforms provide operational requirements and guidance to complement the principles set out in the Financial Regulation and the delegated act, covering non-policy specific issues such as the financial and technical parameters of the instruments. Policy objectives, eligibility criteria, targets, etc. are to be addressed in the sector-specific proposals for the different EU funding instruments which are under discussion. The Commission is currently setting up a Financial Instrument Expert Group and drafting the implementing legislation for the platforms. Issues to be addressed include *inter alia*: specific requirements for the ex-ante evaluation/impact assessment, interim and ex-post evaluations of the financial instruments where appropriate; minimum standards or ranges regarding the multiplier effect, risk/return profile and risk diversification of the instrument; an integrated monitoring and governance system for the instruments using performance/result orientated indicators, tracking mechanisms (e.g. for climate related expenditure) and standardised reporting formats.<sup>82</sup>

---

<sup>77</sup> Proposal for a Regulation of the European Parliament and of the Council on the financial rules applicable to the annual budget of the Union, (COM(2010)815), 22.12.2010, Brussels

<sup>78</sup> EC (2011), A Budget for Europe 2020 – Part II, Communication from the Commission, (COM(2011)500), 29.06.2011, Brussels

<sup>79</sup> EC (2011), A framework for the next generation of innovative financial instruments – the EU equity and debt platforms, Communication from the Commission, (COM(2011)662), 19.10.2011, Brussels

<sup>80</sup> EC (2011), A framework for the next generation of innovative financial instruments – the EU equity and debt platforms, Communication from the Commission, (COM(2011)662), 19.10.2011, Brussels

<sup>81</sup> EC (2011), A framework for the next generation of innovative financial instruments – the EU equity and debt platforms, Communication from the Commission, (COM(2011)662), 19.10.2011, Brussels

<sup>82</sup> EC (2011), A framework for the next generation of innovative financial instruments – the EU equity and debt platforms, Communication from the Commission, (COM(2011)662), 19.10.2011, Brussels

New financial instruments are to form part of EU budget interventions in various policy areas and are to be financed through budget lines from the specific policy areas. The **general objectives to be pursued by these instruments** are to:

- develop private sector capacity to promote growth, jobs and innovation;
- build infrastructures by making use of PPPs in areas such as the transport, energy, ICT; and
- mobilise private investments to deliver public goods, such as climate and environment protection.<sup>83</sup>

A number of proposals for financial instruments have been or are expected to be put forward by the Commission in several different policy areas. Most of the proposals seek to continue the current suite of instruments which were described in the previous chapter, with some modifications to their content, scope and procedures. For example, the Commission's proposal for the FP7 successor programme - Horizon 2020 proposes an expansion of the current RSFF and the earmarking of €1131 million of this risk financing for the implementation of Strategic Energy Technology Plan (SET Plan) projects.<sup>84</sup> One completely new instrument under the proposed Connecting Europe Facility is the EU project bond initiative, which focuses on securing investment for strategic infrastructure projects (see section 3.3).

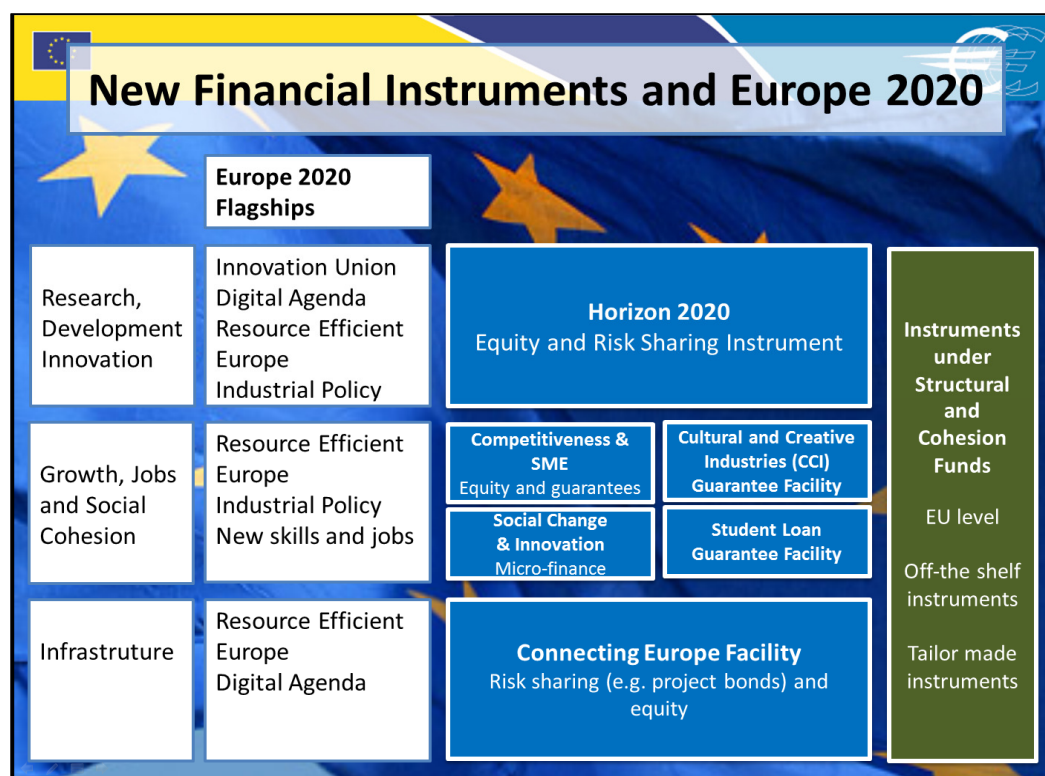
Figure 4 maps out the proposals for new financial instruments in the 2014-2020 MFF against the objectives of the Europe 2020 Strategy. The use of financial instruments is also envisaged in the context of EU external policy instruments and is to be supported under the EU platform for external cooperation and development.

---

<sup>83</sup> EC (2011), A Budget for Europe 2020 – Part II, Communication from the Commission, (COM(2011)500), 29.06.2011, Brussels

<sup>84</sup> EC (2011), Proposal for a Regulation establishing Horizon 2020 - The Framework Programme for Research and Innovation (2014-2020), Brussels, 30.11.2011, (COM(2011)809)

Figure 4: New financial instruments in the 2014-2020 MFF and the Europe 2020 strategy



Source: DG ECFIN, (2011), Financial instruments in the MFF 2014-2020, Presentation at workshop on ‘Exploring the potential of new financial instruments for climate change, 11 October 2011, Brussels

Figure 4 provides an indication of the specific policy areas financial instruments will be applied in the next MFF. More specific details will emerge over the coming months as the respective specific regulations are proposed and finalised. Although financial instruments may not currently be envisaged for use in certain areas for various reasons such as limited budget etc., there are some opportunities for synergies. For example, the future LIFE+ instrument could contribute to financial instruments by providing technical assistance and project development support for specific projects and invest in a specific financial vehicle that is working well, e.g. funding from the future LIFE+ could be used to support specific projects under the Horizon 2020 initiative.<sup>85</sup>

### 3.3 The Europe 2020 project bond initiative

The 2010 EU budget review Communication noted that EU project bonds could be one way to enhance the role of private financing to support investments to modernise European infrastructure. Subsequently in February 2011, the Commission published a consultation paper introducing the Europe 2020 project bond initiative.<sup>86</sup> This led to the proposal, presented in October 2011, for the introduction of a pilot phase of the project bond

<sup>85</sup> Based on discussions at workshop on ‘Exploring the potential of new financial instruments for climate change’, 11 October 2011, Brussels

<sup>86</sup> EC (2011) Stakeholder consultation paper on EU 2020 project bond initiative, February 2011, Brussels, [http://ec.europa.eu/economy\\_finance/consultation/pdf/bonds\\_consultation\\_en.pdf](http://ec.europa.eu/economy_finance/consultation/pdf/bonds_consultation_en.pdf)

initiative between 2012 and 2013<sup>87</sup>. Project bonds are to focus exclusively on infrastructures financed under the Connecting Europe Facility (CEF), i.e. transport, energy and telecommunications infrastructure. It is estimated that €2 billion under the CEF will be dedicated to new financial instruments for transport projects and a further €1 billion for energy projects. This is a provisional estimate and in reality may need to be revised. A leverage effect of 15-20 has been estimated, thus €2 billion could lead to up to €30-40 billion of projects<sup>88</sup>. The actual leverage factor will vary by project. The possibility of combining grant financing, e.g. from the CEF or under Cohesion Policy, with project bonds could also be explored, for example for projects with high EU value added where some grant financing is needed for kick-off, e.g. rail.<sup>89</sup>

### ***What are project bonds?***

Project bonds are essentially a credit enhancement mechanism designed to use EU funds to attract additional private sector financing for individual infrastructure projects through capital markets and project finance techniques. They serve to expand the investor base for private debt funding of projects from loan providers to bond investors. Project bonds are not intended to increase overall public financing and therefore should not be confused with the term 'Eurobonds'. Project bonds are expected to complement rather than replace existing sources of project financing through bank loans or public sector grants. Projects with low or no revenue which are of public interest will still need grant financing. Thus, grants will continue to play a role and could potentially be combined with project bonds if a project can be appropriately structured.<sup>90</sup> Project bonds are considered to be one solution to the current lack of finance for infrastructure projects due to the reduction in long-term lending by banks and the downgraded or liquidated monoline insurance companies which traditionally offered debt service guarantees to institutional investors.

The **design of project bonds** has not been fully laid out yet, but some basic features are already apparent. The project bond initiative is based on the idea of 'tranching' (i.e. dividing) an issuers debt into layers of different seniority,<sup>91</sup> thus dividing debt into separate groups each with their own risks/returns profile and attracting different kinds of investors. Once a project company has been set up (a single purpose vehicle), finance for a particular infrastructure project can be divided into:

- a) A senior tranche issued as bonds to institutional investors such as insurance companies and pension funds;
- b) A subordinated tranche underwritten by the Commission and the EIB as a funded loan or a simple guarantee;

---

<sup>87</sup> Commission proposal for a Regulation of the European Parliament and the Council amending Decision No 1639/2006/EC establishing a Competitiveness and Innovation Programme (2007-2013) and Regulation (EC) No 680/2007 laying down general rules for the granting of Community financial aid in the field of the trans-European transport and energy networks , COM(2011)659

<sup>88</sup> EC (2011) Proposal for a Regulation of the European Parliament and the Council establishing the Connecting Europe Facility, (COM(2011)665, 19.10.2011, Brussels

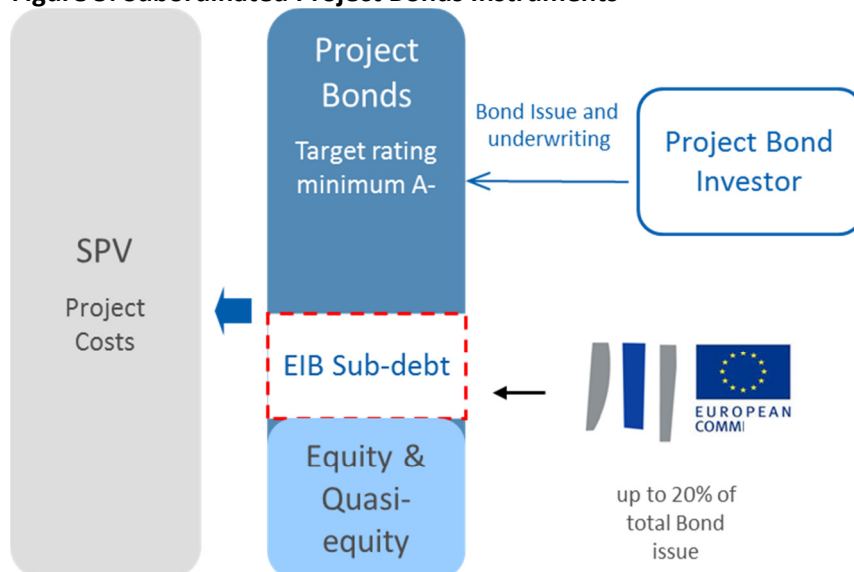
<sup>89</sup> Information draws on discussions during bilateral meetings with European Commission officials

<sup>90</sup> EC (2011) A pilot for the Europe 2020 Project Bond Initiative, (COM(2011)660), 19.10.2011, Brussels

<sup>91</sup> European Investment Bank (2011), 'Supporting the EU budget: the EIB contribution', presentation at the CEPS Task Force meeting, power point presentation, version of 22 June 2011.

The concept of part b) is similar to the system in place for the RSFF and LGTT (see chapter 2.2 and 2.3) and helps to reduce risks and borrowing costs and ultimately to attract investors and buyers of bonds. Large projects would end up with three components (see Figure 5). The guarantees and loans from the EIB and other financiers (equity and quasi-equity) are similar to the RSFF and LGTT. The third component is the projects bonds which is the novelty factor. It is important to note that the guarantee will be priced, thus it will not be a free support element, such as the case in the RSFF or the current SME guarantee schemes under the Competitiveness and Innovation Framework Programme (CIP).

**Figure 5: Subordinated Project Bonds Instruments**



**Source:** EIB (2011) 'Supporting the EU budget: the EIB contribution', presentation at the CEPS Task Force meeting, power point presentation, version of 22 June 2011.

Risk is then divided, as is the case with RSFF and LGTT, in tranches with the EU budget taking up the First Loss Portfolio Guarantee (FLPG). The EIB would de facto be at the second loss position leaving further residual risks to other investors and bond holders. The exact design of the system has not yet been decided and the level of risks and scope of the scheme could be altered with the joining of other institutions. Ultimately the objective is to raise the project's credit rating to AA/A levels which is the asset class conservative institutional investors would consider. The proposals for the CEF and project bonds are rather vague on limitations for additional grants beyond loan guarantees.

It is important to keep in mind that project bonds are a market-driven instrument and require a ring-fenced asset with dedicated revenue streams. Thus, **project bonds are suited to certain types of projects**, usually large infrastructure projects, e.g. power generation projects, transport projects, heat (CHP), energy infrastructure (gas storage, some transmission lines, ICT), which can be adapted to the investor class sought. Given difficulties in analysing underlying revenue streams, project bonds are not ideal for small-scale projects which involve many players and a large number of different components, e.g. energy efficiency projects in buildings, bundling projects under the form of a Collateralised debt obligation (CDOs) etc., and are not as attractive to institutional investors. Project bonds could also in principle be used for large scale renewable energy projects. EU budgetary resources under the future LIFE+ instrument and the EU Cohesion Policy are however not

sufficient to provide a project bond instrument in this area. Therefore, as currently envisaged, in the pilot phase, project bonds will only be used in the context of the CEF, which does however have an energy component, including renewable energy projects.

### ***Preparing for the use of project bonds***

To prepare stakeholders for the use of project bonds in the post-2013 period, the Commission launched a **pilot phase** under the current financial framework. The aim of the pilot phase is to facilitate the market introduction of EU-supported project bonds and test the design and parameters of the initiative so as to make changes, if required, before 2014. The Commission proposes to amend the current TEN Regulation and Competitiveness and Innovation (CIP) Decision, so as to draw up to €230 million from the budget lines of these programmes for the pilot phase.

It is the Commission's intention that grants under the CEF target priority projects listed in the Annex of the proposed CEF Regulation (mostly rail and ports). Project bonds will not be reserved specifically for low carbon infrastructure but their use for other transport infrastructure such as roads means that grant money for more sustainable transport infrastructure would be freed up.<sup>92</sup> This is however still a proposal from the Commission and it remains to be seen whether it will be approved by the Council and the Parliament.

During this phase, general project eligibility will be determined according to the relevant TEN-T, TEN-E and CIP guidelines. The EIB and the Commission are currently developing a pipeline of eligible projects for the pilot phase.<sup>93</sup> During discussions between the Commission and the EIB, the need to invest upstream in advisory services was identified. The introduction of such a service is still under discussion but is expected to be carried out by the EIB through an independent platform (separate from its management of the project bond initiative). This service would help project promoters design projects to fit the financial instrument and develop the project pipeline. Such a service would go some way to addressing issues relating to weak administrative capacities in some new Member States and inadequate capacities of project beneficiaries.<sup>94</sup>

### ***Some key concerns with project bonds***

Unlike the case of most other financial instruments, the introduction of project bonds has been and remains a subject of controversial discussion among EU Member States, the European Parliament and the Commission.<sup>95</sup> Some key concerns relating to the project bond initiative are outlined below:

There remain concerns regarding the **distribution of risks** between the private sector and the taxpayer. While the risks are capped at the EU level for the loan guarantee, this is not as clear for the source of the remaining funding. The CEF will increase the potential share of EU grant support to 50 per cent or even 80 per cent depending on the nature of the

---

<sup>92</sup> Information draws on discussions during bilateral meetings with European Commission officials

<sup>93</sup> EC (2011) A pilot for the Europe 2020 Project Bond Initiative, (COM(2011)660), 19.10.2011, Brussels

<sup>94</sup> Information draws on discussions during bilateral meetings with European Commission officials

<sup>95</sup> See for example the response of the Dutch Government to the consultation on the EU project bond initiative in spring 2011, [http://ec.europa.eu/economy\\_finance/consultation/pdf/dutch\\_government\\_en.pdf](http://ec.europa.eu/economy_finance/consultation/pdf/dutch_government_en.pdf)

infrastructure. It is unclear how both instruments are – if at all – to be combined. At the moment, the CEF is presented as an instrument focusing on those projects which have a high European value added but are too risky or long term to be financed by the private sector. The project bonds would concentrate on those projects which are not attractive to investors due to a low rating and would seek to increase their credit rating through risk guarantees so as to attract demand for the bonds. There is however currently no provision preventing the combination of project bonds and other grants. The project bond initiative also mentions the possibility of governments (or international financial institutions) offering loan guarantees to the private sector.<sup>96</sup> Past experience has shown that certain critical infrastructures run by the private sector under concessions have been ‘rescued’ by the public sector in cases where risks or timeframes were underestimated, where projects were at risk of not being completed or where the operation and maintenance of infrastructures was at risk.<sup>97</sup> Such cases provide an example of a potential excessive risk transfer to the taxpayer. In implementing the project bond initiative, it will be important to ensure that project bonds retain a level of economic rigour in their selection procedure and that the risk distribution between the public and private sector is optimal.

A further issue for consideration, in particular in relation to the transport sector, is the **recovery of the loan and bond value from infrastructure projects**. Based on the polluter pays principle, in the case of road transport users would have to finance infrastructure. There is however no particular provision to guarantee this. Member States often pay contractors based on the principles of infrastructure availability or traffic flows, often taking over the risk if actual demand is lower than forecasted. This is, however, not in line with the polluter pays principle. The lack of proper user charging of road infrastructure in the EU<sup>98</sup> continues to discourage the shift from road to rail and will also affect investor decisions (which will be based on their perceptions of Member State’s commitment to financing the project rather than the usefulness of the infrastructure). This has already been observed in the case of PPPs where an overestimation of the use of specific infrastructures was not reflected in lower payments to private operators.

The lack of clarity on the **eligibility criteria** to be used for investments supported by the project bonds is another issue of concern. There is currently no guarantee that investments will contribute to EU energy and climate change objectives. Although the proposed selection criteria should in theory give a higher ranking to projects in line with EU energy and climate objectives<sup>99</sup>; when issues of cost recovery and revenues are taken into account, sub-optimal solutions from the point of view of emission reduction potential and environmental quality may still be selected. To improve the project selection criteria one could tackle the quality of the projects at source, e.g. through public procurement rules and with the introduction of stricter rules on energy efficiency and emission standards for project development.

---

<sup>96</sup> EC (2011), A pilot for the Europe 2020 Project Bond Initiative, (COM(2011)660), 19.10.2011, Brussels, p.9

<sup>97</sup> Examples can be found in Brenck A., Beckers T., Heinrich M., von Hirschhausen C., (2005), ‘Public private partnerships in new EU member countries of Central and Eastern Europe’, EIB papers, No.2, pp. 82-112

<sup>98</sup> Several Member States have not introduced the Eurovignette Directive or equivalent road charges.

<sup>99</sup> Based on discussions at workshop on ‘Exploring the potential of new financial instruments for climate change’, 11 October 2011, Brussels



### 3.4 Financial instruments under the 2014-2020 Structural and Cohesion Funds

The use of financial instruments is reinforced in the Commission proposals for the 2014-2020 EU Structural and Cohesion Funds.<sup>100,101</sup> The proposals build on experience gained during the 2007-2013 period but also introduce several novelties. In the future, Member States are foreseen to have the following three options for using financial instruments in Structural Funds:

- 1) Member States continue **creating tailor-made instruments** under the shared management principle, based on experiences with JESSICA/JEREMIE;
- 2) Creation of '**off-the-shelf instruments**' under the shared management principle. Member States/regions could use standardised templates for the use of financial instruments (developed by the Commission based on past experience) thereby establishing the financial instrument more easily/speedily. Another objective is to ensure compatibility with EU financial instruments. An open question is whether these will be sector-specific or fund specific. Another outstanding question is how to ensure compliance with state aid requirements in the context of financial instruments and private investments; and
- 3) Member States would be encouraged to invest part of their Structural Funds in **EU level instruments** (e.g. the EEEF). The investment will be 'ring-fenced' to be re-invested in the same regions and policy areas covered by the Operational Programmes from which the Structural Funds were sourced. The rationale for this option is to address capacity constraints in some Member States in using financial instruments. By allocating part of their Structural Funds to a centrally managed instrument, in some ways Member States can 'outsource' the investment, making use of EU expertise but reaping the benefits at the national/regional level. This can also in some ways be seen as a mechanism to ensure better coordination between different EU funding instruments. Overall however, this option implies a circulation of financing across different levels (EU, national and regional) which might bring substantial transaction costs. This option will be further developed in terms of its practical implementation. The rules of centrally managed instruments will apply.

Given that **administrative capacity** is a critical issue for the effective use of financial instruments, the Commission is currently exploring the creation of a **technical assistance platform** for implementation of financial instruments to help Member States with the use of financial instruments. It is still unclear if this platform will be linked to existing technical assistance facilities such as JASPERS and ELENA or if it will be separate. Member States will still be allowed to use the budget under their Operating Programme for technical assistance.<sup>102</sup> The Commission is also currently preparing several evaluation studies,

---

<sup>100</sup> Proposal for a Regulation 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 Regulation (EC) No 1083/2006, COM(2011)615, 6.10.2011, Brussels

<sup>101</sup> EC (2011), A framework for the next generation of innovative financial instruments – the EU equity and debt platforms, Communication from the Commission, (COM(2011)662), 19.10.2011, Brussels

<sup>102</sup> Information draws on discussions during bilateral meetings with European Commission officials

horizontal studies, handbooks, etc., on financial instruments, a number of which are already available on their website.<sup>103</sup>

The Commission proposals introduce several novelties concerning the **use of new financial instruments in EU Structural and Cohesion Funds**. The current legislative framework limits their use to specific types of projects, e.g. SMEs and sustainable urban development.<sup>104</sup> The proposals for the post-2013 period remove this limitation, thereby expanding the scope of financial instruments to all types of projects. The only operational criterion that needs to be taken into account is that projects should be revenue-generating. This means that financial instruments, in the context of climate change objectives, will mostly be suitable for renewable energy projects and related infrastructure, energy efficiency, sustainable transport, smart grids, electric cars, etc. and less suitable for others such as for instance climate adaptation.

The **leverage effect** will be dependent on the financial instrument used, the specific financial products developed, and the sector in which it is applied. Some sectors have a higher potential to attract private financing than others, for example it is easier to achieve a higher leverage in SMEs where the loan guarantee facility has a long history compared to newer areas such as urban development where co-investors need to be convinced of the usefulness of the instrument. The Commission's proposals also remove the current provision that a project cannot be financed by more than one source. This means that the **blending** of (different) grants and loans from the EU will be allowed in the post-2013 period. The complementarity between financial instruments and grants under EU Structural Funds however needs to be further clarified. While financial instruments and grants can be combined, a key question will be how to attract private investors so as to maximise the leverage of EU funds.

#### **4. MAXIMISING OPPORTUNITIES, MANAGING RISKS – KEY ISSUES FOR THE FUTURE USE OF NEW FINANCIAL INSTRUMENTS**

There are many arguments to support the use of financial instruments and an **extended use of such instruments is expected in the years to come**. There is a growing body of knowledge and experience with the use of financial instruments at EU level as well as several national schemes and public private partnerships for engaging private investors in initiatives and projects of public significance. Given the small size of the EU budget and the current context of fiscal consolidation and budgetary restraint, the efficient use of financial instruments can help to increase the impact of public finances by leveraging private sector financing for strategic investments. In addition, a smart use of loan based mechanisms can ensure a better distribution of costs and risks between the public and private sector and encourage the introduction of user pays principles which are important in giving the correct price signals to citizens, in particular when use is linked to impacts on the environment.

---

<sup>103</sup> See: [http://www.eib.org/products/technical\\_assistance/jessica/studies/index.htm](http://www.eib.org/products/technical_assistance/jessica/studies/index.htm)

<sup>104</sup> Article 44 on financial engineering instruments of Council Regulation (EC) 1083/2006 of 11 July 2006 laying down provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and repealing Regulation 1260/1999

In on-going discussions on the 2014-2020 EU MFF, financial instruments are being promoted as a means of attracting additional public and private financing to projects of EU interest at a time of fiscal constraint. Financial instruments offer significant opportunities for bridging the climate financing gap and if used in a targeted way could promote investment in low carbon energy sources, supporting systems, infrastructure and technologies in Europe, thus contributing to multiple environmental, economic and social objectives. While discussions to date have focused on the more technical aspects of the financial instruments, it is also important to consider that financial instruments operate within a wider context and various external factors have an impact on the focus, leverage, take-up, and effectiveness of the instruments.

Financial instruments **need correct enabling conditions and complementary policies to work**. In particular, the underlying legal and regulatory framework needs to be correct to stimulate necessary action. This is all the more important from the perspective of meeting EU objectives in the field of climate change. While efforts are needed to increase the scale of dedicated spending on climate change; there is also a need to ensure that overall spending under the EU budget does not undermine the EU's ability to reach its climate change objectives. Hence, it is important to flank efforts to attract new investments for infrastructure, research and development, buildings etc. with clear policy and regulatory signals to ensure that financial instruments do not lock in carbon-intensive technologies and infrastructures. Financial instruments as such are policy neutral. The direction of their deployment is however highly policy dependent.

Other important enabling conditions include demand for the use of such instruments in Member States, the pipeline of commercially available projects, capacities to assess these and frame information flow, local and regional capacities to manage instruments, certainty about policy direction. Expectations need to match the administrative realities in EU Member States and the needs for related policy learning. Financial instruments are not a silver bullet and should not be considered as a potential solution for all financing requirements, in many areas public goods will continue to require grant financing.

The use of **financial instruments for leveraging spending for climate change in the EU is still a relative niche area** and there seems to be a discrepancy between what policy stakeholders think and expect and what these instruments can actually deliver under current framework conditions. The current political and regulatory framework conditions are not suited to creating significant new impetus for climate change funding. This is all the more the case, as the available budget that underpins these new financial instruments in particular those highly relevant for climate change purposes such as the European Energy Efficiency Fund, is rather small. However, a change in strategizing can be detected and with further efforts could lead to a cranking-up of financial instruments in the future so as to create more leverage for climate change related investments.

The debate on the 2014-2020 MFF and respective funding instruments is well underway. Further details on the use of new financial instruments in the different areas of the EU budget will materialise in the coming months. In this context, some key issues worth considering and further exploring in relation to the **design and implementation of these instruments** include the following:

- There is a need to create ***transparent and accessible rules for the use of financial instruments***. It is important that the design and implementation of financial instruments meet certain conditions. Possible criteria could include *inter alia* respond to market needs; avoid crowding out private activities, national or regional public funding; EU value added; positive economic rates of return, coherence with key EU policy objectives; efficient and timely; achieve high leverage while capping the risk to EU budget resources and aligning the interest of private and public contributions. This however should be balanced with the need for flexibility in the design and implementation of the instruments, as many financial instruments, in particular those delivered under Cohesion Policy need to be tailored to suit local needs.
- More work is clearly needed to analyse the extent to which these instruments could be ***refined and improved in terms of financing the transition to a low-carbon economy***. While it is important that financial instruments are used to finance projects which are in line with wider EU objectives including the EU's climate change policy objectives; it should be kept in mind that financial instruments are market driven and particular types of projects may or may not be suited to different financial instruments.
- The ability to identify, analyse and allocate ***risks*** properly among public and private actors is a key concern for the efficiency and effectiveness of financial instruments. Particularly in the case of complex infrastructure projects, risk profiling can be fraught with difficulties and quite often actual costs are underestimated. The proper analysis of risks should be a key issue in the design of new financial instruments at EU and national level. The share of public support should not unduly reduce the risks of the private sector beyond the level necessary to attract private funding.
- The ***relationship between different financial instruments*** (both existing and proposed) as well as between new financial instruments and financing mechanisms traditionally used in a policy area (e.g. grants) is another key issue. The implementation of the financial instruments proposed under the 2014-2020 MFF will fall under the responsibility of different DGs within the Commission (e.g. DG Research, DG ENER, DG MOVE, DG EMPLOY, DG ENTR, and DG REGIO). It is not yet clear what the potential overlaps and combined potential of these different instruments is and what their contribution to EU climate change objectives will be. The role of EU financial instruments in the context of existing national schemes should also be carefully considered with a view to avoiding duplications of action and/or possible crowding out effects. Financial instruments (both new and traditional) need to work in a complimentary modus to maximise their potential and avoid any crowding out effects.

**Addressing the external context conditions and barriers** are other key issues to take into consideration. Even well-designed instruments can fail if the context conditions are not properly taken into account. In the end, the major impetus needs to come from the **right policy framework**. Hence, it is important to couple the discussion of new financial instruments with the discussion on target-setting and instrument choice as well as priority

setting for European funds, in particular in relation to future Cohesion Policy. Other issues relating to the underlying enabling/governance conditions include the following:

- As shown by past experiences, there is an urgent need for concrete action to **strengthen capacities and knowledge among national and regional actors** about new financial instruments. There is a need to provide appropriate technical assistance tailored to suit local needs and targeted at the level necessary.
- Based on previous experiences with using financial instruments, the lack of **communication**, including at the local level, seems to be a key issue. There is a need to increase understanding of the instruments, raise awareness of the funding available, to better communicate benefits at the local level, and improve access to the instruments, for example by SMEs. Both the EU and Member States could play a role in this regard.
- In addition to EU and EIB instruments, it is also important to **encourage Member States to take forward action at the national level**. This could build on successful examples of national programmes already in place (e.g. in Germany and Poland), although different models may be suited to different national contexts. Information exchange on practical experiences with the optimal use of PPPs and approaches to risk profiling and risk transfer in EU Member States could also be further expanded.