

JASPERS-Lot 5-Knowledge
Economy-R&D/Innovation

**Analysis and Evidence Base of the
R&D&I Market in Romania –
part 2**

Funding Priorities Report

Final Issue | 9 August 2013

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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Ove Arup & Partners Ireland

Arup
50 Ringsend Road
Dublin 4
Ireland
www.arup.com

ARUP

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1 Background

1.1 Introduction

OVE ARUP and Partners Ireland (Arup) has undertaken an assignment under the Framework agreement for technical assistance to JASPERS beneficiary countries to support the review and analysis of the Research, Technological Development and Innovation (RTDI) based activities within Romania referred to as the 'Analysis & Evidence Base of R&D&I Market in Romania'.

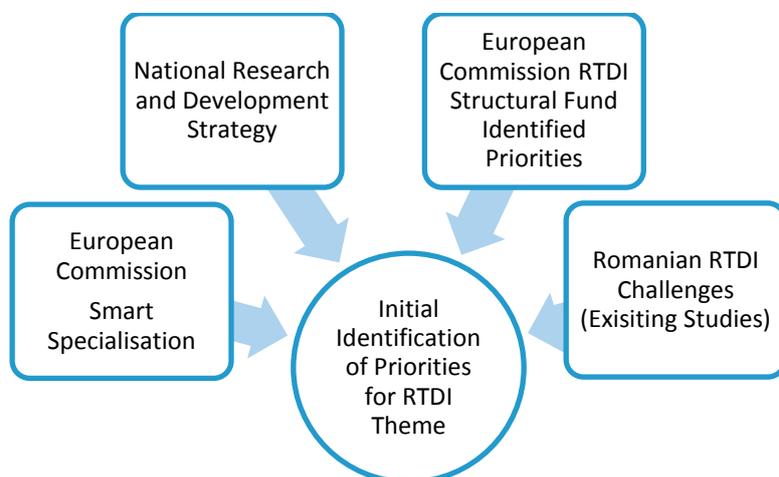
This assignment will highlight core priorities for the Research, Technological Development and Innovation priority axis of the Romanian Operational Programme of the Structural and Cohesion Funds for 2014 to 2020. In the context of research, technological development and innovation the cohesion and structural funds can be used to finance a variety of interventions and actions. In the context of RTDI these could include; Stimulating Business Demand for Innovation; Stimulating Knowledge transfer; Promoting Graduate Placements and Entrepreneurship and Building Demonstrator Facilities. The assignment will also include the profiling of project interventions. Example projects will be identified under each proposed action within the priority axis. Utilising a standardised template each project will be profiled.

1.2 Assignment Methodology

The assignment consists of three tasks:

Task 1: Analysis of Key Documentation: The JASPERS project team will conduct an analysis of identified project documents and undertake an interview with the project team developing the Romanian National Research, Development and Innovation Strategy for 2014 to 2020. The JASPERS project team has produced an inception report that highlighted our initial thinking on the core priorities for the priority axis of the operational programme for 2014 to 2020.

Figure 1: Task 1 - Methodology Overview



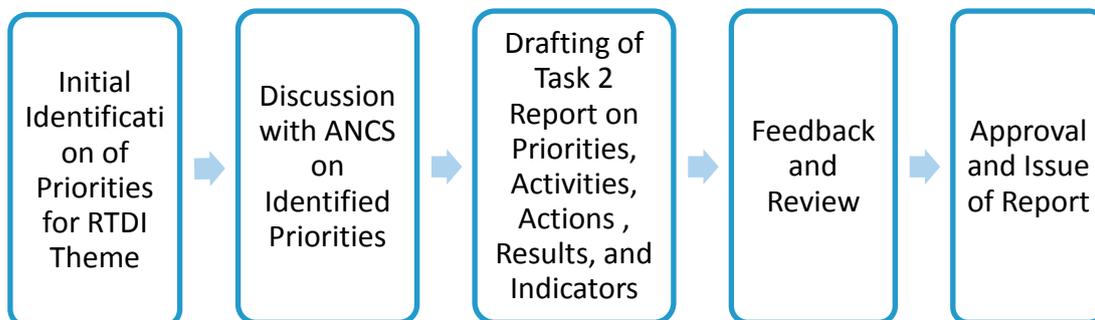
The approach to the delivery of this task (Figure 1) has included an overview of the published challenges for the Research, Technological Development and Innovation system of Romania and a summary of the actions and activities highlighted by the European Commission within its Smart Specialisation approach, the view of the European Commission communicated to Romania on priorities for RTDI and the priorities highlighted from the Romanian National Strategy for Research and Development which will be open to consultation in late July 2013. These inputs provide the core information required to propose the views of the ARUP team for the priorities for funding for discussion with ANCS and to aid discussion regarding the development of task 2.

The outcome of task 1 is a project inception report

Task 2: Profiling Funding Interventions

The JASPERS Team will produce a report (this document) providing an overview of proposed activities to be supported, an indicative list of specific actions and indicative results and indicators, evaluation criteria for projects submitted and a list of eligible activities under each proposed action. This report can be used as the basis for inclusion into the operational programme.

Figure 2: Methodology for Completion of Task 2



The process for the delivery of this task (Figure 2) will lead from the development of the draft priorities (the outcome of task 1). This is then followed by discussions with ANCS regarding the priorities and the production of the priorities which will be subject to review and feedback by ANCS.

The outcome of task 2 will be a funding priorities report (this document).

Task 3: Profiling Project Interventions

Task 3 will provide 20 example projects that align with the priorities identified. Each case study profile will include; short description, background, aims and target, funding, strategy and actions, monitoring and evaluation, sustainability, achievements, success factors, impacts, strengths and weaknesses and transferability.

The delivery of this task will be driven by the identification of priorities for the RTDI theme and will be commenced following discussion with ANCS on the identified priorities. The case studies will be subject to peer review within the ARUP project team and feedback and review prior to approval and issue. The methodology for task 3 is highlighted in figure 3.

Figure 3: Methodology for Task 3



1.3 Report Overview

This funding priorities report for task 2 details provides the background to the Research, Technological Development and Innovation theme of the Structural and Investment Funds. It highlights the rationale and objectives for the theme which is based on the objective to improve the competitiveness of the European economy and the focus of Research, Technological Development and Innovation based on the potential specialisation priorities identified in the initial work of this assignment. The document then includes a high-level overview of the activities which can be supported within the theme. The main part of the document is section 3.2.3 which details strands of activity within the Research, Technological Development and Innovation theme, namely:

- Research and Development Infrastructure
- Technology and Innovation Centres and Demonstrator Infrastructure
- Stimulating Business Demand for Innovation
- International R&D Collaboration
- Promoting Graduate / Researcher Development and Entrepreneurship

Each strand of activity is described and includes examples of indicative actions and types of projects, types of beneficiaries, the financing approach, the state-aid position, results and output indicators and technical selection criteria. The paper includes an overview of general project selection criteria and concludes with an overview of the next steps for this assignment.

2 European Structural Funds and Cohesion Fund 2014 to 2020

The Structural Funds and the Cohesion Fund are financial tools set up to implement the regional policy of the European Union. They aim to reduce regional disparities in terms of income, wealth and opportunities. Europe's poorer regions receive most of the support, but all European regions are eligible for funding under the policy's various funds and programmes.

In October 2011, the European Commission presented a new draft legislative package which will frame cohesion policy for 2014-2020. The proposals were designed to reinforce the strategic dimension of the policy and to ensure that EU investment is targeted on Europe's long-term goals for growth and jobs ("Europe 2020"). The next generation of cohesion policy programmes will operate from 2014 to 2020.

Every European region may benefit from the support of ERDF and ESF. However a distinction between less developed, transition and more developed regions will exist in order to ensure concentration of the Funds according to the level of Gross Domestic Product (GDP). Supporting the less developed regions will remain an important priority for cohesion policy. The catching-up process of less developed regions will require long-term sustained efforts. This category concerns those regions whose GDP per capita is less than 75 % of the average GDP of the EU-27. Minimum shares for the ESF will be established for each category of region (25 % for less developed regions; 40 % for transition regions; and 52 % for more developed regions) resulting in a minimum overall share for the ESF of 25 % of the budget allocated to cohesion policy, i.e. EUR 84 billion.

In the European Commission's proposal for cohesion policy in 2014-2020 (European Commission, 2011) it is a precondition for using the European Regional Development Fund (ERDF) that investments in research, development and innovation are made based on a smart specialisation strategy that supports integrated, place-based economic transformation.

The Research, Technological Development and Innovation thematic objective has three specific priorities; to increase private research and innovation development; support research and innovation infrastructure and capacity to develop excellence centres and promoting an innovation friendly environment for business.

Communication from the European Commission to Romania (European Commission, 2012) has identified specific objectives for this thematic priority which reflect country specific challenges.

Increasing private research and innovation development

- Develop incentives for research collaboration between large domestic or foreign companies and SMEs with an innovative approach, involving where appropriate universities and other resource institutions, encouraging start-ups and spin-offs;

- Increase the research and innovation capacities of firms, including SMEs, supporting technological and applied research and investing in pilot lines and early product validation actions, especially with the aim of creating new products and technologies protected by various forms of IPR (patents, licenses) and boosting high-tech exports;
- Improve the matching of skills produced by universities and higher education institutions with market needs and promote internships based on collaboration between universities and firms.

Supporting research and innovation infrastructure and capacity to develop excellence centres

- Promote the capacity of R&D Romanian institutions to integrate with international networks and the capacity of Romanian R&D institutions to efficiently network with other EU and international partners participating in transnational programmes fostering also Romania's inclusion in the digital European Research Area and e-science;
- Further strengthening the administrative capacity, streamlining the sectoral governance, including ensuring the role of education for R&I, and concentrating the public resources on the most promising and capable beneficiaries which may include setting competitive working conditions to attract leading scientists.

Promoting an innovation friendly environment for business

- Revise the intellectual property rights framework with the view of increasing commercialisation of research and innovation by public and private stakeholders;
- Promote the transfer of knowledge and innovation in rural economy through the European Innovation Partnership for agriculture and sustainability;
- Foster the development of clusters and cooperation between clusters organisations and knowledge institutions, including in the maritime, agricultural and green growth sectors ;
- Provide high quality shared access facilities and full package of services tailored to match the needs of innovative companies, including promotion of commercialisation.

3 Core Priorities for Romanian Research, Technological Development and Innovation : Discussion

3.1 Introduction

The identification of core priorities for Romanian Research, Technological Development and Innovation is not straightforward given the challenges including limited business investment, limited national financing of research and innovation and lack of human resource. It must be remembered that this funding for Research, Technological Development and Innovation is being provided within the framework of the European Structural funds with their focus on growth and economic and social restructuring. Maximising the impact of investment is fundamental to achieving positive outcomes and delivering sustainability of investment.

Considering the Romanian situation consideration should be given to how interventions can be 'packaged' to provide a 'critical mass' of activity and support with connections that are 'hard-wired' rather than projects and programmes delivered in isolation. The following areas have been identified by the authors based on their country knowledge, innovation literature, smart specialisation objectives, European Commission input and input on the National Strategy for Research and Development as key investment priorities for Romania. These priorities have been discussed with ANCS and an initial overview was provided in the inception report for this assignment.

It is expected that most funding within the theme for research, technological development and innovation will be grant based. In the current and previous programmes grants have been provided to eligible businesses for individual projects working with universities or research institutes. In considering the design of the new programme it is important to reflect on alternative funding mechanisms for the delivery of activity.

A key challenge identified is the establishment of critical mass. While this can be achieved by the design of investment priorities it can also be driven by approaches to grant funding. The potential investment priorities outlined include indicative actions that will require the development of collaborative projects e.g. Technology and Innovation Centres and Demonstrators. Collaborative projects developed under these actions will require a lead organisation that is contractually accountable for the financing received and for the delivery of outputs. However such projects can include partners from other institutions from both the public and private sector that will either be involved in direct delivery or in a supportive capacity. This is particularly important in a smart specialisation context where support could be provided through a hub and spoke network approach enabling businesses to draw on the most appropriate expertise from a range of institutions. In this context the lead organisation would establish a formal agreement with its partners and would distribute grant to them on an agreed basis.

The potential investment priorities include actions (e.g. Innovation Vouchers) where the level of grant support being provided to SMEs is at a level where it would result in excessive administration for the SME to apply directly to the Managing Authority and where the cost of administration by the Managing Authority would be excessive in comparison to the level of grant being provided. In this context a project can be established by an intermediary organisation who would contract with the managing authority and be financially responsible for the management and audit of grants and the recording of contracted outputs.

The potential investment priorities do include grants for collaborative research and development, grants for start-ups and grants for commercialisation. While these could be managed by an intermediary organisation they could also be base on applications to the managing authority with contracting directly with SMEs.

3.2 Investment Theme: Research Technological Development and Innovation

3.2.1 Rationale and Objective

Europe's competitiveness, its capacity to create millions of new jobs to replace those lost in the crisis and its future well-being depends on the ability to drive innovation in products, services, business and social processes and models. The RTDI (Research Technological Development & innovation) investment theme focuses on providing funds that will address bottlenecks to innovation and increase investment in business research and development through close collaboration between public and private actors.

The overall aim of this theme is to increase private sector led research and innovation development, support the development of research and innovation infrastructure and excellence centres within Romania and to promote an innovation friendly environment for business. Work by the Autoritatea Nationala pentru Cercetare Stiintifica (ANCS) and JASPERS has through an 'analysis of the research, development and innovation base' identified themes at a national level as a prime focus for innovation activity.

These relate to business clusters with potential for significant growth through innovation, namely:

- Food and Agriculture
- Information and Communications Technology
- Engineering and Technology

The analysis of research, development and innovation has specifically identified the importance of food and agriculture in the Romanian economy and its significance in terms of employment and GVA at both a national and regional level. It is also relatively significant in research in both agriculture overall and biotechnology. The ICT sector overall is well reflected in economic activity in both telecommunications and software at a national and regional level with established clusters across Romania. In addition ICT has a strong research profile at a national and European level in terms of project profile and relatively significantly in terms of publications. The field of engineering and technology is the most diverse of all the sector areas incorporating motor vehicles, other transport, electronics, machinery and equipment and technical textiles. At a business level these are the areas in which the largest level of business expenditure in research and development can be seen and in which there are significant foreign owned businesses.

In addition to these sectors the theme will support projects and programmes including energy and environment, textiles, machinery and environment, wood and furniture, and electronics, tourism, pharmaceuticals and cosmetics, rural development, construction and healthcare taking into account local and national strengths and potential.

Programmes and projects will be supported which will enhance; (a) current and future business potential and Romanian research specialisations at a national and international level; (b) the matching of business sector activity and research undertaken by business, government and enterprise; (c) support regional specialisations and existing cluster profiles with a focus on technology which can be deployed across sectors and priorities which match business activity both in commercial terms and in research and with a linkage to government and higher education research.

3.2.2 Description of Activities to be Supported

This theme will raise the profile of the country to integrate the knowledge base and business activity to generate new products and services, and help understand and satisfy emerging market needs. Funding will enable high profile projects to provide a sense of vision that will integrate activity to stimulate innovation and enhance the reputation of the country.

The theme will support activities which:

- Disseminate and support the adoption of new technologies (key enabling technologies) through cooperation between research and education, technology transfer, applied research, technology development providers and demonstration facilities
- Invest in innovative solutions and research infrastructures (research facilities and technology centres, competence centres and science parks) and equipment
- Focus on enhancing applied research, through reinforced cooperation with industry to leverage private R&I investment.

- Support for clusters, cooperative partnerships between research, education and innovation actors, business R&I infrastructures
- Promote R&I business advisory services
- Create more demand for innovative products through public procurement of innovation
- Encourage cooperation (pilot projects and the development of new products, practices, processes and technologies, including the introduction of low carbon and green technologies) between the agriculture, food and forestry sectors and other actors and the creation of clusters and networks.
- Establish rural advisory services to improve economic and environmental performance.
- Set up operational groups involving farmers, researchers, advisors, civil society and businesses involved in the agriculture and food sectors in order to develop and implement innovative projects on topics of common interest.

The Research, Technological Development and Innovation theme overall will support capacity-building for the economic exploitation of new ideas stemming from research and innovation. This includes support for clusters, cooperative partnerships between research, education and innovation actors, business R&I infrastructures, promotion of R&I business advisory services and demonstration activities, and creating more demand for innovative products through public procurement of innovation.

3.2.3 Indicative List of Specific Actions

3.2.3.1 Research and Development

Strand 1: Research and Development infrastructure:

Innovation is critical for Europe's future and research infrastructures are a driving force behind it. The focus for Romania will be on investing in research infrastructure that will provide platforms for cooperation among universities, enterprises and research institutes. Research, development and technological innovation are the main pillars of a knowledge economy and require qualified human resources and adequate technical equipment (instrumentation, equipment, laboratories, information networks etc.). This investment will provide support for scientific communities with world-class facilities that are accessible for a range of researchers and projects stimulating multidisciplinary research and fostering linkages.

Projects and programmes supported under this theme will increase the ability of research and development institutions to efficiently cooperate with renowned research institutions in the European Union and other countries, as well as businesses through the transfer of knowledge and technologies. The theme will invest in good quality research and development infrastructure as the precondition for increasing the volume and quality of research and development activity in Romania.

This strand of the RTDI theme will support capacity-building to support research and innovation excellence and technological change, by investing in innovative solutions and research infrastructures and equipment, ideally in particular those of European interest in the context of Joint Programming Initiatives, the ESFRI ('European Strategy Forum on Research Infrastructures') research infrastructures, the development of the Regional Partner Facilities and within the Strategic Energy Technology Plan. This includes support for "satellite infrastructures" linked to the ESFRI-related research infrastructures, national/regional research facilities and technology centres, competence centres and science parks, with a clear focus on enhancing applied research, through reinforced cooperation with industry to leverage private R&I investment.

The resulting innovation ecosystem will spur new ideas, solutions and innovations of benefit to the economy and society, as well as science. Investments will be targeted on key economic areas identified within the development of the Romanian Smart Specialisation Strategy.

Research and Development: Eligible Activities and Expenditure

Research and Development Infrastructure: Including capital expenditure relating to the development of facilities, infrastructure and capital equipment for land acquisition, building acquisition, site investigation, site preparation, building and construction, plant and machinery, fees and other capital.

- Land acquisition: The cost of purchasing land for the development of facilities.
- Building acquisition: The cost of acquiring a building if there is a direct link between the purchase and the objectives of the project.
- Site investigation: This should take account of specialist investigations required to identify contamination and recommended particular treatments.
- Site preparation: This should include demolition works and the general preparation of sites.
- Building & construction: This should include external/internal refurbishment and conversion of existing buildings, new build premises, provision of services, and landscaping.
- Plant & machinery: This should include tangible fixed assets used for the purpose of providing a service for the project. If plant and machinery is subject to hire/lease purchase agreements, the capitalised value of leasing and hire purchase can be included. The purchase costs of second-hand equipment are eligible provided they meet the needs of the projects and have not been purchased with the aid of national or community grants. If there are any mobile or portable items then an apportionment of costs should be provided separately.
- Fees: This should include fees and salaries for design and supervision but professional fees should not normally exceed 12.5% of the total eligible works costs. Fees include legal consultancy fees, notarial fees, and the cost of technical and financial experts if they are directly linked to the ERDF operation and are necessary for its preparation or implementation.

- **Other Capital:** Any eligible capital expenditure not covered by the categories above provided it can be clearly demonstrated that these are directly related to the delivery of the project. This may include expenditure through financial engineering instruments.

Research and Development Infrastructure Activity: Including revenue costs relating to staffing, overheads, premises, fees and other revenue. Linked to the delivery of research & development and innovation activity supporting enterprise development:

- **Staffing:** This should include staffing costs for personnel directly engaged on the project.
- **Overheads:** This should include general administration costs associated with the direct delivery of the project, office equipment with an asset life of less than a year, expendable supplies, and other costs that are essential to the effective implementation of the project.
- **Premises:** This should include rent, rates, heat, light and service charges associated with the premises where it can be clearly demonstrated that these are incurred by the organisation solely for the ERDF project. Where premises are shared the amount charged to the ERDF project should be apportioned accordingly.
- **Fees:** This should include any work done by an independent consultant if the work was essential to the project and the costs were reasonable.
- **Other Revenue:** Any eligible revenue expenditure not covered in the categories above provided it can be clearly demonstrated that these are directly related to the delivery of the project. This could include depreciation, amortisation and impairment of assets that have not been purchased with the help of national or Community grant. Documents showing how depreciation costs have been calculated must be kept for audit purposes. Any expenditure related to marketing and publicity should also be included here.

Research and Development: Beneficiaries

- Research Institutions and Academies
- Universities

Research and Development Infrastructure: Financing

The financing of research and development infrastructure will be based on direct grant financing of the beneficiary organisation.

Research and Development Infrastructure: State Aid

No Aid.

Where universities/research organisations or other not for profit intermediaries provide publicly funded services to businesses they can be regarded as a channel for state aid rather than a recipient of it themselves as long as they can show that they are not deriving an undue advantage as intermediaries.

Any aid to end user businesses must comply with normal State aid rules e.g. R&D project aid, de minimis. Please refer to the SME State Aid Handbook.

http://ec.europa.eu/competition/state_aid/studies_reports/sme_handbook.pdf

Research and Development Infrastructure: Indicators

New Research Infrastructure created

Number of new researchers in supported institutions

Number of enterprises cooperating with supported research institutions

Research and Development Infrastructure: Technical Selection

Alongside the General Criteria for Structural and Investment Funds proposed research infrastructure projects should be assessed on:

- the cross disciplinary nature of the research Infrastructure;
- the capability to support multiple projects and researchers;
- the engagement with business and industry as partners in the development of the infrastructure project;
- the alignment of research infrastructure to Horizon 2020 priorities,
- the level of support provided to SMEs and the alignment to the identified priority areas of the Romanian smart specialisation strategy
- the research standing of the beneficiary organisation
- the research standing of the professors within the beneficiary organisation
- the development of a proposal through 'teaming initiatives' (see strand 4 on International R&D Collaboration)
- For projects involving partnerships the nature of the partnership in terms of activity and contractual management must be described with respect to the role of each partner in the project.

3.2.3.2 Technology and Innovation Centres and Demonstrator

Strand 2: Technology and Innovation Centres and Demonstrator Infrastructure

Supporting the development of high-potential ideas into new products and services and providing an environment for the testing of such products and services is a core component of an innovation system. This investment will support the development of sector and cluster based research and development infrastructure and demonstrator centres. The focus would be on the economic areas identified within the development of the Romanian Smart Specialisation Strategy e.g. Food and Agriculture, ICT, Engineering and Technology, Energy and Environment and Health.

A Technology and Innovation Centre is a physical centre (or hub and spoke network) where the very best businesses, scientists and engineers work side by side on late-stage research and development - transforming "high potential" ideas into new products and services to generate economic growth. Technology and Innovation Centres would provide a critical mass of expertise to support commercialisation of research and development including; technology, processes, regulatory approval or supply chain development.

Demonstrators enable the large scale testing of new products and services in the real world and support the validation of ideas, the overcoming of barriers and the wider application of products and services. The demonstrators would offer access to equipment and specialist facilities to test ideas in reality. The purpose of technology demonstrators is to prove research outcomes in real-world situations, where the impact on improved productivity and economic competitiveness can be measured. Demonstrators act as catalysts for economically important innovation and technology development, and natural two-way links between the science base and industry. Demonstrator projects must show how they will effectively engage with regional SMEs, as their most important effects will be in the extent to which businesses are able to develop new products or services, enter new markets, increase sales or improve productivity.

This strand of activity within the RTDI theme will include the dissemination and adoption of new technologies, in particular key enabling technologies, through cooperation with actors in the world of research and education, technology transfer, applied research, technology development and demonstration facilities, in order to help companies develop more innovative products, processes, marketing and services and diversify the national/regional economy through new high-growth activities.

Technology and Innovation Centres and Demonstrator: Eligible Activities and Expenditure

This investment will support the development of sector and cluster based research and development infrastructure and demonstrator centres. This includes capital expenditure for land acquisition, building acquisition, site investigation, site preparation, building and construction, plant and machinery, fees and other capital. The demonstrators would offer access to equipment and specialist facilities.

- Land acquisition: The cost of purchasing land for the development of facilities.
- Building acquisition: The cost of acquiring a building if there is a direct link between the purchase and the objectives of the project.
- Site investigation: This should take account of specialist investigations required to identify contamination and recommended particular treatments.
- Site preparation: This should include demolition works and the general preparation of sites.
- Building & construction: This should include external/internal refurbishment and conversion of existing buildings, new build premises, provision of services, and landscaping.
- Plant & machinery: This should include tangible fixed assets used for the purpose of providing a service for the project. If plant and machinery is subject to hire/lease purchase agreements, the capitalised value of leasing and hire purchase can be included. The purchase costs of second-hand equipment are eligible provided they meet the needs of the projects and have not been purchased with the aid of national or community grants. If there are any mobile or portable items then an apportionment of costs should be provided separately.

- Fees: This should include fees and salaries for design and supervision but professional fees should not normally exceed 12.5% of the total eligible works costs. Fees include legal consultancy fees, notarial fees, and the cost of technical and financial experts if they are directly linked to the ERDF operation and are necessary for its preparation or implementation.
- Other Capital: Any eligible capital expenditure not covered by the categories above provided it can be clearly demonstrated that these are directly related to the delivery of the project. This may include expenditure through financial engineering instruments.

It also includes revenue costs relating to staffing, overheads, premises, fees and other revenue linked to the provision of expertise to support commercialisation of research and development including; technology, processes, regulatory approval or supply chain development.

- Staffing: This should include staffing costs for personnel directly engaged on the project.
- Overheads: This should include general administration costs associated with the direct delivery of the project, office equipment with an asset life of less than a year, expendable supplies, and other costs that are essential to the effective implementation of the project.
- Premises: This should include rent, rates, heat, light and service charges associated with the premises where it can be clearly demonstrated that these are incurred by the organisation solely for the ERDF project. Where premises are shared the amount charged to the ERDF project should be apportioned accordingly.
- Fees: This should include any work done by an independent consultant if the work was essential to the project and the costs were reasonable.
- Other Revenue: Any eligible revenue expenditure not covered in the categories above provided it can be clearly demonstrated that these are directly related to the delivery of the project. This could include depreciation, amortisation and impairment of assets that have not been purchased with the help of national or Community grant. Documents showing how depreciation costs have been calculated must be kept for audit purposes. Any expenditure related to marketing and publicity should also be included here.

Technology and Innovation Centres and Demonstrator: Beneficiaries

- Research Institutions and Academies
- Universities
- Science and Technology Parks
- Business Incubators
- Business

Technology and Innovation Centres and Demonstrator: Financing

The financing of research and development infrastructure will be based on direct grant financing of the beneficiary organisation.

Technology and Innovation Centres and Demonstrator State Aid:

No Aid.

Where universities/research organisations or other not for profit intermediaries provide publicly funded services to businesses they can be regarded as a channel for state aid rather than a recipient of it themselves as long as they can show that they are not deriving an undue advantage as intermediaries.

Any aid to end user businesses must comply with normal State aid rules e.g. R&D project aid, de minimis. Please refer to the SME State Aid Handbook.

http://ec.europa.eu/competition/state_aid/studies_reports/sme_handbook.pdf

Technology and Innovation Centres and Demonstrator: Indicators

- Number of enterprises cooperating with supported research institutions
- The number of collaborative R&D projects between an enterprise and a research institution.
- Enterprises Assisted
- Increased number of businesses that are actively innovating to bring new products and services to the market
- Increased levels of business investment in R&D

Technology and Innovation Centres and Demonstrator Technical Selection

Alongside the General Criteria for Structural and Investment Funds proposed technology and Innovation Centre and Demonstrator projects should be assessed on:

- the level of technology development and innovation expertise within the beneficiary organisation and its partners
- the engagement of the project beneficiary and its partners with small- and medium-sized enterprises
- the alignment to the identified priority areas of the Romanian smart specialisation strategy
- the alignment of research infrastructure to Horizon 2020 priorities
- the level of support provided to SMEs and the focus on the commercialisation of products, services or processes
- the cross disciplinary nature of the proposed technology and innovation centre or demonstrator
- the technology proposed within the demonstrator facility and its linkage to the need and demand of enterprises
- the potential economic impact of the technology and innovation centre and demonstrator facilities delivered through its linkage to enterprises
- for projects involving partnerships the nature of the partnership in terms of activity and contractual management must be described with respect to the role of each partner in the project.

3.2.3.3 Stimulating Business Demand for Innovation

Strand 3: Stimulating Business Demand for Innovation

Stimulating collaborative research and innovation activity between business and academia and between businesses is essential in convergence regions. This investment will stimulate and support the development of innovation and knowledge and technology absorption of Romanian businesses in key priority sectors and clusters through University-Business cooperation in Research and Development. Additionally it will provide support for businesses to undertake research and innovation projects and for universities and research institutions to access 'proof of concept' or 'pre-commercialisation grants'.

The programme will stimulate high quality business-academic collaborative research that will lead to increased private sector R&D investment that will, in turn, deliver economic or quality of life benefits, through support of knowledge exchange and innovation activities involving SMEs. The Programme seeks to increase the number of businesses which collaborate with and draw on the skills and facilities of universities and research organisations to meet their technical and knowledge-support needs, help solve business challenges and stimulate innovation. The following are examples of the types of projects which can be supported under this portfolio:

- Collaborative R&D Grants, which will finance projects involving partnerships between businesses and between business and academia, collaborative R&D reduces financial and technical risk and encourages knowledge exchange, supply chain development and parallel working on complex challenges.
- Innovation vouchers or research vouchers which are designed to encourage businesses to look outside their current network for new knowledge that can help them to grow and develop. The voucher could have three key criteria; the idea should be a challenge for the business that requires specialist help; it should be the first occasion in which the business has worked with the knowledge supplier and the idea should be applicable to one of the priority sectors / clusters.
- Cluster or sector based research and development grants which would provide funding for business innovation that aims to support the development and strengthening of clusters of high-tech companies in specific theme areas and geographical locations. They would provide base funding for approved research and development projects and act as a catalyst to help the companies behind the projects to attract more investment. Grants would not need to include universities or research institute partners.
- Research and Development Commercialisation Grants which would be cluster and sector based and which would provide funding support for Universities and research institutes to further develop research to commercialisation. Grants would be based on a commercial opportunities appraisal. Grants would not need to include commercial business partners.

- R&D Grants for Start-Up's and Established Businesses: This action would support R&D and innovation led start up enterprises and existing businesses to secure investment, enabling innovation, growth and job creation. The action would support start ups and established SMEs to develop robust financial plans and support approaches to banks and equity investors; provide small scale start up grants offered at a 40% intervention rate and provide access to finance for established businesses looking to invest and grow. Grants would be available at different intervention rates (10 - 30%) depending upon size and location of business. Grants would help with investments in: premises, machinery and resource measures.

Stimulating Business Demand for Innovation: Eligible Activities

For Research Institutions and Universities: For grants eligible for Universities and research institutes the use of the grant can include revenue costs relating to staffing, overheads, premises, fees and other revenue linked to the provision of expertise and use of infrastructure.

- Staffing: This should include staffing costs for personnel directly engaged on the project.
- Overheads: This should include general administration costs associated with the direct delivery of the project, office equipment with an asset life of less than a year, expendable supplies, and other costs that are essential to the effective implementation of the project.
- Premises: This should include rent, rates, heat, light and service charges associated with the premises where it can be clearly demonstrated that these are incurred by the organisation solely for the ERDF project. Where premises are shared the amount charged to the ERDF project should be apportioned accordingly.
- Fees: This should include any work done by an independent consultant if the work was essential to the project and the costs were reasonable.
- Other Revenue: Any eligible revenue expenditure not covered in the categories above provided it can be clearly demonstrated that these are directly related to the delivery of the project. This could include depreciation, amortisation and impairment of assets that have not been purchased with the help of national or Community grant. Documents showing how depreciation costs have been calculated must be kept for audit purposes. Any expenditure related to marketing and publicity should also be included here.

The grants would be provided to assist businesses in developing new innovative products, processes or services or to support University commercialisation of intellectual property in establishing proof of concept and in the provision of support for business and investment planning.

For Businesses the grants would provide assistance in developing new innovative products, processes or services. Eligible costs could include:

- Staffing: This should include staffing costs for personnel directly engaged on the project.

- **Overheads:** This should include general administration costs associated with the direct delivery of the project, office equipment with an asset life of less than a year, expendable supplies, and other costs that are essential to the effective implementation of the project.
- **Fees:** This should include any work done by an independent consultant if the work was essential to the project and the costs were reasonable.
- **Other Revenue:** Any eligible revenue expenditure not covered in the categories above provided it can be clearly demonstrated that these are directly related to the delivery of the project. This could include depreciation, amortisation and impairment of assets that have not been purchased with the help of national or Community grant. Documents showing how depreciation costs have been calculated must be kept for audit purposes. Any expenditure related to marketing and publicity should also be included here.

Stimulating Business Demand for Innovation: Beneficiaries

- Lead organisation that would contract with the managing authority and manage the grant scheme (examples include):
 - Research and Development Intermediary
 - Innovation Intermediary
 - Regional Development Agency
 - Cluster organisation
- Final Beneficiary who would be the grant recipient:
 - Businesses
 - Universities, research institutions or academies for research and development commercialisation grants

Stimulating Business Demand for Innovation: Financing

To reduce complexity in project application, appraisal and managing grant schemes within this portfolio of activity could be administered through an intermediary organisation who will submit a funding application to the intermediate body for research to operate a specific scheme. Once approved the intermediary organisation would announce calls for applications, assess applications and contract with individual businesses or universities and research institutions, receive financial spend information and issue grant payments in line with the structural funds guidance.

Within this strand of activity there is the potential for the adoption of a risk sharing finance facility (RSFF) in addition to the provision of grants. The RSFF involves loans that bear interest and must be repaid — it is a debt-based instrument with no elements of grant or subsidy. Loan repayments can be used to fund further RSFF loans. The RSFF funds up to a maximum of 50% of the project costs, while the beneficiary must provide the other 50% from own resources or other investors.

The Commission is proposing to set up a debt funding facility and an equity funding facility under Horizon 2020 building on the existing Risk Sharing Financing Facility under FP7. The debt facility will provide loans and the equity facility will focus on early stage venture capital funds. The proposed financial instruments will include; a debt financial instrument that will provide loans and guarantees for investments in Research & Innovation; that is demand-driven; targeting groups including midcaps and larger companies, research bodies and stand-alone projects, and an Equity Financial Instrument providing a facility for early-stage finance for innovative enterprises (seed and start-up companies) and possible growth stage financing. A similar fund at a national level may be appropriate to support research and development commercialisation activity.

Stimulating Business Demand for Innovation: State Aid

- Lead organisation that would contract with the managing authority and manage the grant scheme
 - No Aid. Intermediaries can be regarded as a channel for state aid rather than a recipient of it themselves as long as they can show that they are not deriving an undue advantage as intermediaries.
- Final Beneficiary who would be the grant recipient
 - Aid to end user businesses must comply with normal State aid rules e.g. R&D project aid, de minimis. Please refer to the SME State Aid Handbook.
 - http://ec.europa.eu/competition/state_aid/studies_reports/sme_handbook.pdf

Stimulating Business Demand for Innovation: Indicators

- Number of enterprises cooperating with supported research institutions
- Number of collaborative R&D projects between an enterprise and a research institution.
- Enterprises Assisted
- Increased number of businesses that are actively innovating to bring new products and services to the market
- Increased levels of business investment in R&D
- Number of research projects commercialised

Stimulating Business Demand for Innovation: Technical Selection Criteria

Alongside the General Criteria for Structural and Investment Funds proposed technology and Innovation Centre and Demonstrator projects should be assessed on:

Collaborative R&D Grants / Innovation Vouchers or Research Vouchers:

- the engagement of the project beneficiary and its partners with small- and medium-sized enterprises
- the alignment to the identified priority areas of the Romanian smart specialisation strategy

- the level of support provided to SMEs and the focus on the commercialisation of products, services or processes
- the linkage between the university or research institution and the SME. Does the University or research institution have the appropriate capability to meet the SME requirement?
- The experience of the SME in working with a knowledge base provider (university or research institution)
- For projects involving partnerships the nature of the partnership in terms of activity and contractual management must be described with respect to the role of each partner in the project.

Cluster or Sector based Research and development grants:

- the engagement of the project beneficiary and its partners with small- and medium-sized enterprises
- the alignment to the identified priority areas of the Romanian smart specialisation strategy
- the level of support provided to SMEs and the focus on the commercialisation of products, services or processes
- the commercialisation and investment potential of the innovation being financed, including:
 - Uniqueness of the technology
 - Readiness of the technology for production
 - Value of the market
 - Anticipated profit margins
 - Intensity of competition in the market
 - Competitive edge of the product or service
 - Ease of access to the market
 - Commitment of the team
 - Commercial experience of the team
- For projects involving partnerships the nature of the partnership in terms of activity and contractual management must be described with respect to the role of each partner in the project.

Research and Development Commercialisation Grants:

- the alignment to the identified priority areas of the Romanian smart specialisation strategy
- the commercialisation and investment potential of the innovation being financed, including:
 - Uniqueness of the technology
 - Readiness of the technology for production
 - Value of the market
 - Anticipated profit margins
 - Intensity of competition in the market
 - Competitive edge of the product or service
 - Ease of access to the market
 - Commitment of the team

- Commercial experience of the team

R&D Grants for Start-Ups and Established Businesses:

- the commercialisation and investment potential of the innovation being financed, including:
 - Uniqueness of the technology
 - Readiness of the technology for production
 - Value of the market
 - Anticipated profit margins
 - Intensity of competition in the market
 - Competitive edge of the product or service
 - Ease of access to the market
 - Commitment of the team
 - Commercial experience of the team

3.2.3.4 International R&D Collaboration

Strand 4: International R&D Collaboration

The Council of the European Union has stressed the importance of international cooperation in research and innovation in supporting competitiveness and addressing global societal challenges. Raising scientific and technological excellence in all parts of the Union is a prerequisite for the success of the Europe 2020 Strategy. It is recognised that support for research and innovation is a major investment priority and that it is important that less developed member states and regions are assisted in climbing the 'staircase to excellence'. In this context, the structural funds are considered the most important source of funding for the less developed regions for research and innovation.

The overall aim of this strand of the RTDI theme is to support Romanian research organisations, researchers and business in accessing European research, development and innovation funding and access to global innovation and R&D markets. The following are examples of the types of projects which can be supported under this strand of the RTDI theme:

- R&D International Missions: This action would deliver entrepreneur 'missions', in which the pick of innovative and often early-stage companies in the identified priority areas would travel to countries strong in innovation and enterprise, such as the US, to make new connections and meet potential investors, suppliers and customers.
- Accessing European Research, Development and Innovation Funding: This action would support Romanian research organisations, researchers and business in accessing European Research funding through the Horizon 2020 programme and additional funding streams as appropriate. The support would include, guidance on choosing thematic priorities and instruments and advice on administrative procedures and contractual issues.

- Horizon 2020 and Convergence: This action would support capacity building activity within the Romanian research environment to promote a more balanced development of the European Research Area. The European Commission has set out a strategy for the creation of “stairways to excellence” to support less developed member states and regions. Activities that can be financed under this action include:
 - ERA Chairs: to attract outstanding academics to institutions with a clear potential for research excellence, in order to help these institutions fully unlock this potential and create a level playing field for research and innovation in the European Research Area.
 - Teaming initiatives to establish, reinforce and develop partnerships between countries and regional research actors and international leading counterparts. Teaming aims at the creation of new (or significant upgrade of existing) centres of excellence in low performing RDI Member States and regions. It will focus on the preparatory phase for setting up or upgrading and modernising such an institution facilitated by a teaming process with a leading counterpart in Europe, including supporting the development of a business plan.

International R&D Collaboration: Eligible Activities and Expenditure

International R&D missions: The activity is the recruitment of companies and delivery of an international R&D mission. Eligible expenditure includes the costs incurred in the development and delivery of the mission, namely:

- Beneficiary: Staffing costs, overheads and other revenue relating to the organisation, management and delivery of the international R&D missions
- Business: Travel and Subsistence costs related to the international mission

Accessing European, Research, Development and innovation Financing:

- Support for beneficiary organisations for travel and subsistence costs for being a partner or co-ordinator of a transnational European Project
- Costs for a national contact point in providing staffing to support the provision of expertise in relation to expert support. Eligible expenditure would include; staffing, overhead and other revenue.

Horizon 2020 and Convergence:

- ERA Chairs: The recruitment of an outstanding academic to support the development of universities and research institutions. Eligible expenditure would include staffing costs, overhead and other revenue in support of the ERA Chair position.
- Teaming Initiatives: Support for staffing costs, overheads and other revenue for the institutions involved in the teaming initiative.

International R&D Collaboration: Beneficiaries

- Research Institutions and Academies
- Universities
- Businesses

International R&D Collaboration: Financing

Accessing European Research, Development and Innovation Funding and Horizon 2020 and Convergence: The financing of International R&D Collaboration will be based on direct grant financing of the beneficiary organisation for actions related to Horizon 2020 and Convergence and Accessing European Research, Development and Innovation Funding.

International R&D missions: In relation to International R&D missions to reduce complexity in project application, appraisal and management, grant schemes within this portfolio of activity could be administered through an intermediary organisation who will submit a funding application to the intermediate body for research to operate a specific scheme.

International R&D Collaboration: State Aid

Accessing European Research, Development and Innovation Funding and Horizon 2020 and Convergence: No Aid.

International R&D missions: Final Beneficiary who would be the grant recipient

- Aid to end user businesses must comply with normal State aid rules e.g. R&D project aid, deminimis. Please refer to the SME State Aid Handbook.
- http://ec.europa.eu/competition/state_aid/studies_reports/sme_handbook.pdf

International R&D Collaboration: Indicators

- Enterprises Assisted in International Research and Development
- Number of outstanding academics engaged with Romanian research institutions and universities.
- Number of Research business plans created
- Number of Research Institutions, Universities and Businesses engaged in Horizon 2020

International R&D Collaboration: Technical Selection

Alongside the General Criteria for Structural and Investment Funds proposed international R&D collaboration projects should be assessed on:

- International R&D Missions
 - the engagement of the project beneficiary and its partners with small- and medium-sized enterprises
 - the level of support provided to SMEs and the focus on the commercialisation of products, services or processes

- the alignment to the identified priority areas of the Romanian smart specialisation strategy
 - For projects involving partnerships the nature of the partnership in terms of activity and contractual management must be described with respect to the role of each partner in the project.
- Horizon 2020 Engagement
 - The quality of academic engaged in ‘ERA-Chair’ activity in relation to their international standing, research publications and quality of research / applied research.
 - The potential of institutions to enhance their research capacity and capability through the use of teaming initiatives
 - The potential to support a wider range of research institutions, universities and SMEs in bidding into Horizon 2020.
 - The alignment to the identified priority areas of the Romanian smart specialisation strategy

3.2.3.5 Promoting Graduate/Researcher Development and Entrepreneurship

Strand 5: Promoting Graduate / Researcher Development and Entrepreneurship

Supporting the development of graduates and researchers to engage in knowledge and technology transfer activity is an important component of a research and innovation system. The overall aim of this strand of the funding theme is to enhance the skills base of graduates and researchers to support knowledge and technology transfer activities with business and the commercialisation potential of research and development activities in both the public and private sectors. Activities funded under this strand will improve the opportunities for skilled people to contribute to increased economic activity via innovation through the provision of graduate or postgraduate placement schemes in small companies with no history of employing graduates to help provide skills in the latest technology areas or support for recent graduates to establish their own start-up business.

The following are examples of the types of projects which can be supported under this strand of the RTDI theme:

- Knowledge Transfer Partnerships: Developed in the UK, Knowledge Transfer Partnerships (KTP) helps businesses to improve competitiveness, productivity and performance by accessing the knowledge, technology and skills that are available within the Knowledge Base (universities, colleges and research organisations), through the development of collaborative partnerships which stimulate innovation and can transform the participating organisations.

They offer businesses the opportunity to work in partnership with an academic institution to obtain knowledge and expertise to which they currently have no access, to address their business challenges and embed sustainable innovation.

The knowledge sought is embedded into the company through a project or projects undertaken by a recently qualified person (known as the KTP Associate) recruited specifically to work on that project and supervised by both an academic and business representative.

- Enterprise Fellowship Scheme: An enterprise fellowship scheme provides university graduates with the opportunity to work on developing a commercial business proposition in collaboration with a host University. The scheme would provide a one-year basic salary to the enterprise fellow along with access to small grant support, business training, access to mentors, business experts and advisors and access to University laboratory facilities and office space. An equity stake is taken in the business to be supported.

Promoting Graduate / Researcher Development and Entrepreneurship: Eligible Activities and Expenditure

Knowledge Transfer partnerships are based on the provision of a recent graduate within an enterprise. Eligible expenditure will include the graduate salary, the costs of an academic supervisor with associated overhead costs and other revenue. For the business the eligible costs will include the additional costs associated with employment the graduate. The innovation intermediary managing the programme will be able to finance their activities involved with administering the scheme including staff costs, overheads and other revenue.

The enterprise fellowship scheme will include the graduate salary, the costs of an academic supervisor with associated overhead costs and other revenue. It will also include the costs of business accommodation within a science and technology park or business incubator. The innovation intermediary managing the programme will be able to finance their involved activities with administering the scheme including staff costs, overheads and other revenue. The can also finance the appointment of experts to advise the enterprise fellows and the development and delivery of a training programme for the enterprise fellow.

Promoting Graduate / Researcher Development and Entrepreneurship: Beneficiaries

- Research Institutions and Academies
- Universities
- Innovation Intermediaries

Promoting Graduate / Researcher Development and Entrepreneurship: Financing

To reduce complexity in project application, appraisal and management grant schemes within this portfolio of activity should be administered through an intermediary organisation which could be at national or regional levels who will submit a funding application to the managing authority to operate a specific programme. Once approved the intermediary organisation would announce calls for applications, assess applications and contract with individual businesses or universities and research institutions, receive financial spend information and issue grant payments in line with the structural funds guidance.

Promoting Graduate / Researcher Development and Entrepreneurship: State Aid

- Lead organisation that would contract with the managing authority and manage the grant scheme
 - No Aid. Intermediaries can be regarded as a channel for state aid rather than a recipient of it themselves as long as they can show that they are not deriving an undue advantage as intermediaries.
- Final Beneficiary who would be the grant recipient (KTP Only)
 - Aid to end user businesses must comply with normal State aid rules e.g. R&D project aid, de minimis. Please refer to the SME State Aid Handbook.
 - http://ec.europa.eu/competition/state_aid/studies_reports/sme_handbook.pdf

Promoting Graduate / Researcher Development and Entrepreneurship: Indicators

- Number of Enterprises Supported
- Number of business start-Ups
- Number of Graduates engaged in Knowledge transfer and commercialisation activity (Graduates placed in SMEs)

Promoting Graduate / Researcher Development and Entrepreneurship: Technical Selection

Alongside the General Criteria for Structural and Investment Funds proposed technology and Innovation Centre and Demonstrator projects should be assessed on:

- the engagement of the project beneficiary and its partners with small- and medium-sized enterprises (KTP)
- the alignment to the identified priority areas of the Romanian smart specialisation strategy
- the level of support provided to graduates establishing new business start-ups and the focus on the commercialisation of products and services
- For projects involving partnerships the nature of the partnership in terms of activity and contractual management must be described with respect to the role of each partner in the project.

3.3 General Selection Criteria

Alongside the specific criteria outlined for each strand of activity within the Research, Development and Innovation theme there will be general selection criteria that will be established at a national level across all the European Structural and Investment Fund themes. This section outlines those general criteria that may be included within the programme.

Generally based it is expected that projects submitted will, in order to qualify for assistance satisfy the following criteria:

- Occur within the programme area e.g. Romania
- Take place within the permitted timescale
- Match at least one of the activities, defined within the programme (this also includes actions - such as meeting environmental requirements and in the case of capital projects, planning consents)
- Contribute to one or more of the programme strategic objectives. In all instances, projects must demonstrate an additional and sustainable benefit to socio-economic development
- Have measurable outputs and detail clear, attainable and verifiable targets.
 - The application should set out the outputs from the project as anticipated by the applicant. The outputs are fundamental to the project as they measure the benefits required under the programme. They therefore need to be clearly stated and the basis for them must be demonstrated. Wherever possible, the applicant should be asked to provide a value for these outputs so that the benefits can be measured.
- Have a funding package in place which identifies both the recipient of the assistance, (with the exception of delegated grant schemes) and the source of match funding.
 - The viability of both the project and the applicant need to be considered at the outset of the appraisal.
 - The depth to which organisational viability will need to be considered will depend on the organisation involved. Where the viability of an organisation is doubtful, copies of the last three years annual accounts, preferably audited, should be obtained.
 - Project viability will depend on sufficient financing being available to cover the costs involved during the period of the project. The applicant will need to be able to demonstrate that non-ERDF support will be available. Proof of other funding, (apart from revenue from the project), should be made available during appraisal.
- Demonstrate the principle of additionality
 - Projects should be supported only to the extent that the activity is undertaken at all, on a larger scale or earlier as a result of being supported by expenditure under the Structural Funds.
- Ensure that the EU rules on state aid are not breached
 - State Aids schemes require prior notification and approval by the Commission unless they fall within the block exemptions, e.g. *de minimis* aid, training aid and aid to SME's. These exemptions remove the requirement to notify the Commission and are not an exemption from the State aid rules.

- Provide value for money
 - Once the need for grant has been established, assistance should be the minimum necessary for the project to proceed. The available non-grant funding for the project and its potential revenue, (if any), will need to be considered.
- Not conflict with EU policies and actions, including the rules on competition and on the elimination of inequalities and promotion of equality between men and women.
- Demonstrate a positive environmental impact where possible or minimisation of any negative impacts.
- For projects involving partnerships the nature of the partnership in terms of activity and contractual management must be described with respect to the role of each partner in the project.

3.4 Funding Investment Priorities

It is expected that most funding within the theme for research, technological development and innovation will be grant based. In the current and previous programmes grants have been provided to eligible businesses for individual projects working with universities or research institutes. In considering the design of the new programme it is important to reflect on alternative funding mechanisms for the delivery of activity.

Grant Funding

A key challenge identified is the establishment of critical mass. While this can be achieved by the design of investment priorities it can also be driven by approaches to grant funding.

Lead Organisation and Partners: The potential investment priorities include indicative actions that will require the development of collaborative projects e.g. Technology and Innovation Centres and Demonstrators. Collaborative projects developed under these actions will require a lead organisation that is contractually accountable for the financing received and for the delivery of outputs. However such projects can include partners from other institutions from both the public and private sector that will either be involved in direct delivery or in a supportive capacity. This is particularly important in a smart specialisation context where support could be provided through a hub and spoke network approach enabling businesses to draw on the most appropriate expertise from a range of institutions. In this context the lead organisation would establish a formal agreement with its partners and would distribute grant to them on an agreed basis.

Intermediary Organisation: The potential investment priorities include actions (e.g. Innovation Vouchers) where the level of grant support being provided to SMEs is at a level where it would result in excessive administration for the SME to apply directly to the Managing Authority and where the cost of administration by the Managing Authority would be excessive in comparison to the level of grant being provided. In this context a project can be established by an intermediary organisation who would contract with the managing authority and be financially responsible for the management and audit of grants and the recording of contracted outputs.

Direct financing to SMEs: Grant applications are currently received by SMEs. The potential investment priorities do include grants for collaborative research and development, grants for start-ups and grants for commercialisation. While these could be managed by an intermediary organisation they could also be based on applications to the managing authority with contracting directly with SMEs.

Financial Instruments

Financial Instruments are flexible mechanisms and can be used alongside grants to support activities with revenue generating potential, especially in more economically prosperous EU regions. The basic mechanism is that EU funds can be used in a revolving way i.e. funds are invested – repaid – reinvested – repaid. In the programme area, and through risk coverage or risk participation, they can attract other public and private investors to invest, or invest more alongside EU funds. This multiplier effect (impact or leverage) of Financial Instruments can be much greater than grant assistance.

Note: The regulations regarding financial instruments are detailed and the development of such funds would require specialist input.

Financial Instruments need to be an integral part of a strategy to support SMEs and innovation, not a standalone project. They can complement programme activities supported with grants, interact with the business community and network and enhance efforts to promote entrepreneurship and innovation.

Financial Instruments can contribute to developing a new culture within the programme area away from grant dependency. Apart from capital injection they can offer advice to entrepreneurs/projects with strategy and business plan development, create incentives for business oriented attitude and more efficient use of funds, pool expertise and know how between public authorities, financial institutions and final recipients and facilitate internationalisation of activities with great market potential.

Financial Instruments are firmly anchored in the strategic documents and draft regulations shaping the EU funding in 2014- 2020. These documents call for a greater use of FIs by Member States and programmes as they can provide an important, new financing stream for innovative and strategic projects and support long-term, sustainable investment at a time of fiscal constraint.

Financial Instruments are EU funds combined with other public and private sector funds, used in a revolving way in the form of repayable instruments such as e.g. loans, equity, mezzanine and guarantees invested according to profitability criterion. The basic mechanism is that the same funds are used on a commercial basis (e.g. through the fund, venture capital funds, loan funds and guarantee fund mechanisms) several times through various revolving cycles. They are invested and returned after the agreed lending period and reused for at least 10 years after the closure of programme for further investments in the same or another Financial Instrument, in accordance with the agreed objectives. Ideally, funds invested in FIs become self-sustainable and are utilised eternally (evergreen), which increases their impact as compared with grant-based mechanisms. From a purely budgetary point of view, grants 'are lost' while funds invested through FIs stay in a cycle.

Repayable Financial Instruments include:

Equity Financing: Equity financing is selling a partial interest in the company to investors to obtain capital. The equity, or ownership position, that investors receive in exchange for their funds usually takes the form of stock in the company. In contrast to debt financing (loan), equity financing does not involve direct obligation to repay the funds. Instead, equity investors become part-owners and partners in the business, and thus are able to exercise some degree of control over how it is run. Since creditors are usually paid before owners in the event of business failure, equity investors accept more risk than debt financiers. As a result, they usually also expect to earn higher return on their investment. But because the only way for equity investors to recover their investment is to sell the stock at a higher value later, they are generally committed to furthering the long-term success and profitability of the company. In fact, many equity investors in start-up companies and very young companies also provide managerial assistance to the entrepreneurs. Equity instruments are usually more appropriate for very high risk start-ups or for SMEs that have reached a stage in their development where substantial additional funding is required but is unavailable in the form of debt.

Loan Financing: Loan as the typical form of debt financing is the purchase of the present use of money with the promise to repay it in the future according to a pre-arranged schedule and at a specified rate of interest. Loan contracts formally spell out the terms and obligations between lender and borrower. Loans can be classified as long-term (with maturity longer than one year), short-term (with maturity shorter than two years), or a credit line (for more immediate borrowing needs). They can be endorsed by co-signers, guaranteed by the government, or secured by collateral - such as real estate, accounts receivable, inventory, savings, life insurance, stocks and bonds, or the item purchased with the loan. The interest rate charged on the borrowed funds reflects the level of risk the lender undertakes by providing the money. For example, a lender may charge a start-up company higher interest rate compared with the interest rate it charges a company with a proven profit record from the past.

Mezzanine Financing: Mezzanine financing consists of a mix between debt financing and equity. It can be distinguished between equity mezzanine – i.e. forms of mezzanine that have many elements of equity – and debt mezzanine – i.e. forms of mezzanine that have many elements of debt financing. Mezzanine financing is usually unsecured and subordinate (so-called „junior“) to normal debt financing (so called “senior loans”). Mezzanine is an extremely flexible form of financing. It is believed that the use of mezzanine financing will continue to grow.

Venture Capital: Professional equity co-invested with the entrepreneur to fund early stage (seed and start-up) or expansion of an enterprise. The aim of venture capital investors is to support companies with high growth potential, help them grow and create value over several years by providing advice, incentives, networking and knowledge through a range of specific investment structures. Venture Capital is considered as a factor decreasing substantially the required time to introduce an innovation on the market.

Risk Sharing Financing Facility

The RSFF is an innovative, debt-based financial instrument, supported by contributions from the European Union’s Seventh Framework Programme (FP7) and the EIB’s own funds, which allows the Bank to provide loans to higher-risk, but potentially also higher-reward innovative projects undertaken by research-intensive companies and organisations.

The ‘risk-sharing’ element of the RSFF is based on the European Investment Bank and the European Union providing up to EUR 1 billion each of capital to the RSFF, creating a reserve of EUR 2 billion to serve as a cushion to cover potential losses on lending operations. The EU provides its share from FP7, and the EIB from its own funds. This ‘capital cushion’ allows the EIB to provide up to EUR 10 billion as loans or guarantees for RDI projects.

The RSFF involves loans that bear interest and must be repaid — it is a debt-based instrument with no elements of grant or subsidy. Loan repayments can be used to fund further RSFF loans. The RSFF funds up to a maximum of 50% of the project costs, while the beneficiary must provide the other 50% from own resources or other investors. The RSFF is demand-driven by the financing needs of RDI project promoters and works on a ‘first come, first served’ basis.

The application of an RSFF facility within the theme for Research and Development and Innovation could provide a useful mechanism for the development of projects and sustainability of activity. Critical issues for the application of this will be whether a critical mass of funding can be established to support its development and the desire of Romanian businesses to access funding through this mechanism.

The Commission proposes to set up a debt funding facility and an equity funding facility under Horizon 2020 building on the existing Risk Sharing Financing Facility under FP7. The debt facility will provide loans and the equity facility will focus on early stage venture capital funds. The proposed financial instruments will include; a debt financial instrument that will provide loans and guarantees for investments in Research & Innovation; that is demand-driven; targeting groups including midcaps and larger companies, research bodies and stand-alone projects, and an Equity Financial Instrument providing a facility for early-stage finance for innovative enterprises (seed and start-up companies) and possible growth stage financing.

4 Next Steps

As outlined in the introduction to this report, in the context of research, technological development and innovation the cohesion and structural funds can be used to finance a variety of interventions and actions.

In the next task within this assignment, the JASPERS Team will profile project interventions that could be adapted within a Romanian context and adopted within the next programming period. Example projects will be identified under each proposed action within the priority axis. Utilising a standardised template each project will be profiled. 20 example projects will be profiled. Each case study profile will include; short description, background, aims and target, funding, strategy and actions, monitoring and evaluation, sustainability, achievements, success factors, impacts, strengths and weaknesses and transferability.

The overall timeframe for completion is the 6th August 2013.

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