Financing RDI during crisis. Restrictions and challenges

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EU2020

- ***Smart growth – an economy based on knowledge and innovation*** means strengthening knowledge and innovation as drivers of our future growth. This requires:

- improving the quality of our education;

- strengthening our research performance;

- promoting innovation and knowledge transfer throughout the Union;

- making full use of information and communication technologies;

- ensuring that innovative ideas can be turned into new products and services that create growth, quality jobs and help address European and global societal challenges.

To succeed, this must be combined with entrepreneurship, finance, and a focus on user needs and market opportunities.

New sources for new growth

- the key to competitiveness today and in the future is creating an economy in which knowledge and innovation are the primary tools, in which growth stems from European brains rather than brawn or materials. This requires **more investment in R&D and measures to ensure that research results are transformed into innovative products and services.**

EU2020 headline targets - 3% of the EU's GDP should be invested in R&D. → flagship = "Innovation Union" to improve framework conditions and access to finance for research and innovation so as to ensure that innovative ideas can be turned into products and services that create growth and jobs.

Flagship:

- improve access of SMEs to Intellectual Property Protection, speed up setting of interoperable standards;
- improve access to capital and make full use of demand side policies, e.g. through public procurement and smart regulation;

- To strengthen and further develop the role of EU instruments to support innovation (e.g. structural funds, rural development funds, R&D framework programme, CIP, SET plan), including through closer work with the EIB and streamline administrative procedures to facilitate access to funding, particularly for SMEs and to bring in innovative incentive mechanisms linked to the carbon market, namely for fast-movers;

- To promote knowledge partnerships and strengthen links between education, business, research and innovation, including through the EIT, and to promote entrepreneurship by supporting Young Innovative Companies.

- **At national level:**
  - **reinforce cooperation** between universities, research and business, implement joint programming and enhance cross-border co-operation in areas with EU value added and adjust national funding procedures accordingly, *to ensure the diffusion of technology across the EU territory*;
  - **to prioritise knowledge expenditure**, including by *using tax incentives and other financial instruments to promote greater private R&D investments*.

Main restrictions:

- lower levels of investment in R&D and innovation,
- reluctance in some parts of our societies to embrace innovation,

R&D spending in Europe is below 2%, compared to 2.6% in the US and 3.4% in Japan, mainly as a result of lower levels of private investment. It is not only the absolute amounts spent on R&D that count – Europe needs to focus on the impact and composition of research spending and to improve the conditions for private sector R&D in the EU. Our smaller share of high-tech firms explains half of our gap with the US.

Romania

RDI expenses as % of GDP

2009 0,2%

2008 0,58% (NE-0.39%, SE- 0,18%, S-0,35%, SV-0,21%, V-0,3%, NV-0,43%, C-0,13%, Bucharest- 1,62%)

- private sector 30% of total investment in R&D

Employment in high-tech activities +RDI (NE-1,31%, SE-1,21%, S-1,23%, SV-0,95%, V-4,16%, NV-2,03%, C-1,71%, Bucharest- 6,55%)

Innovation as pillar of competitiveness

Scor 3.1 (Global report on Competitiveness, 209-2010)

Global finance still needs fixing.

The availability of easy credit, short-termism and excessive risk-taking in financial markets around the world fuelled speculative behaviour, giving rise to bubble-driven growth and important imbalances.

Europe is engaged in finding global solutions to bring about **an efficient and sustainable financial system**.

Focusing attention on

- the need for both the public and private sectors to invest in R&D but on impact rather than on input;
- the need to improve the conditions for private R&D;
- the need for a broader range of expenditure which would be more relevant for business operations and for productivity drivers.

Priority setting in financing

- **mix of instruments** for priority setting, including technology foresight and technology road-mapping.- R&D map (ex Korea);

- setting priorities in science and technology as part of its medium- and long-term planning, and has proven its ability to mobilise resources to achieve its goals. The approach to priority setting is still largely top-down and is biased towards high technology (ex China);

- a strong social consensus on issues relating to sustainable development as well as strong capabilities in associated areas of science and technology (Norway)

- targeted investments - funding priority areas in key technologies such as nanotechnology and medical technologies (ex. Switzerland) - higher education includes portfolio management, fostering strengths and profiles, and allocation of much university investment to a few selected fields;

- selective policies through the cluster initiative (ex. Chile);

Source: OECD Reviews of Innovation Policy, www.oecd.org/sti/innovation/reviews

The extension of the application of **competitive mechanisms** to proposals for areas of technology, clusters and consortia.

Experience with P/PPs for research and innovation indicates that they can be an effective focusing device for the allocation of resources with industry participation, and thus contribute to priority setting in new ways.

The approach:

- **top-down**, *e.g.* defining certain thematic areas (sometimes in rather broad terms) financed mainly by state,

- **bottom-up** - may adopt thematically open procedures which have proven fruitful in revealing developments within the innovation system, *e.g.* through the appearance of multidisciplinary consortia engaging in novel types of joint research.

Main directions in financing

- structural priorities (research infrastructure, tertiary education, industry-academic links, financing innovation, IPR protection regimes, etc.) - “policy mixes”, which emphasise achieving an appropriate blend of measures;

- thematic priorities- competitive advantages- the need for critical mass in research, specialisation or technological competitiveness- proper financing + modern managing instruments.

The main outcome from financing RDI - *Going beyond economic goals → innovation for social goals and social impacts of innovation*

A strategic approach to fostering innovation is necessary to achieve the core objectives of public policy. As countries emerge from the economic downturn, and with other sources of growth declining in importance and global challenges mounting, innovation needs to be harnessed more effectively. **Innovation has been, and must continue to be, a driver of rising living standards.**

The ambitious objective of the Lisbon Agenda has been partly overtaken by the financial and economic crisis that hit the European Union in the second half of 2008.

- now, it is important to stimulate long-term investment in those areas of the economy that will benefit future generations and not leave them burdened with debt for investment that shows short-term gain only.

- Europe will come out of the current financial and economic crisis stronger than it was before.

Brussels European Council 13/14 March 2008

- Investment agenda Knowledge & Innovation;
- People and modernisation of labour markets;
- Fifth Freedom cross border mobility;
- SMEs

Finding private funding sources for RDI projects can be difficult due to their nature:

- complex products and technologies;
- unproven markets;
- intangible assets;
- information difficult to evaluate by the financial sector;

⇒ Risk Sharing Finance Facility (RSFF).

RSFF is an innovative scheme to improve access to debt financing for private companies or public institutions promoting activities in the field of RDI.

RSFF is built on the principle of credit risk sharing between the European Community and the EIB and extends therefore the ability of the Bank to provide loans or guarantees for investment with a higher risk and reward profile. The RSFF has a EUR 2bn capital cushion: EUR 1bn from the EIB and the same amount from the Commission's 7th Research Framework Programme (2007-2013)

⇒ the Bank can to lend more than EUR 10bn for this kind of investment (by mid-2010 already EUR 6bn had been committed)

Risk Sharing Finance Facility – Policy Objectives

General Policy Objective of the Renewed Lisbon Strategy (2008-10): "Transform EU into the world's leading knowledge – based economy"

RDI gaps in Europe

- *Average corporate R&D spending as % of GDP in US & Japan is around 3%, in Europe it lags significantly at levels around 1.5%*
- *Innovative companies investing in RDI (Capex + Opex) have difficulties securing stable financing at acceptable rates*

Solution

EIB to fill the gap left by the commercial banks by providing tailor-made financing solutions to innovative European companies rated BBB- and below by creating EUR 10bn RSFF Facility

EIB and EC underwrote the RSFF Facility with EUR 1.0bn each of capital to set up the "Risk Sharing Finance Facility".

Sursa: "*Financing of European Research, Development and Innovation (RDI)*", European Investment Bank, april 2010

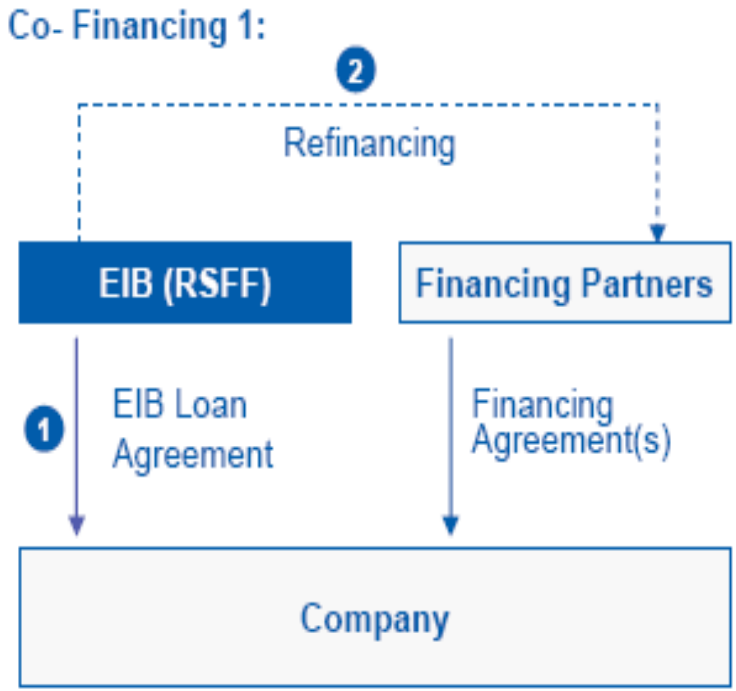
Risk Sharing Finance Facility – Strategic Objectives

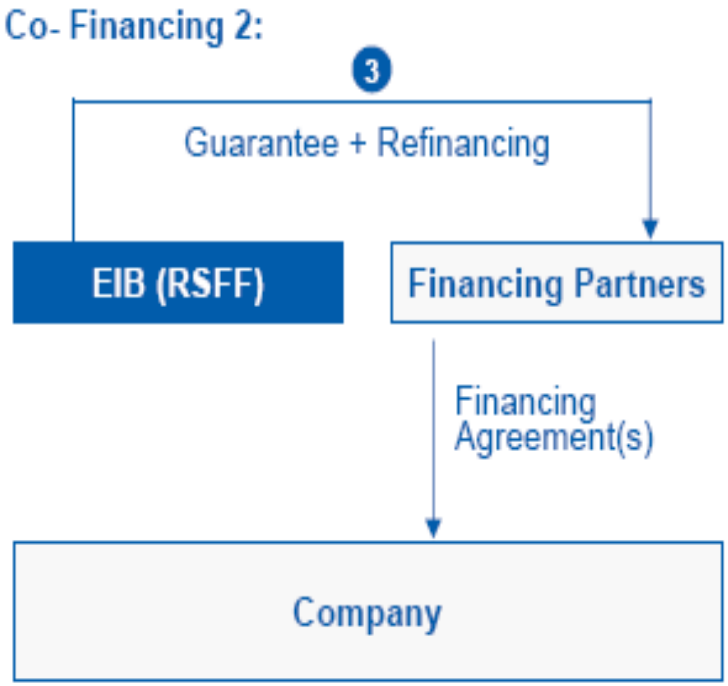
- support the financing of innovative companies of any size and ownership for the implementation of eligible RDI projects;
- provide value added by sharing risks with promoters, banks and other financiers for the financing of eligible projects;
- offer RSFF access to small and medium sized projects and companies;
- priority of European Technology Platforms, Joint Technology Initiatives and Eureka
- support European Research Infrastructures

Risk Sharing Finance Facility (RSFF) – Benefits for Beneficiaries

- Pricing advantage (EIB's AAA rating and non-for-profit pricing);
- Long maturities of up to 10 years;
- Direct EIB financing from EUR 7.5m up to EUR 300m per transaction;
- Strong technology/industry expertise;
- EIB does not sell assets on the secondary market (buy and hold strategy);
- Relationship with co-financing partners: no cross selling of other products (just long-term lender);
- Signalling Effect: EIB as a quality stamp;
- Diversification of funds

Financing Models under RSFF





Bilateral Lending:

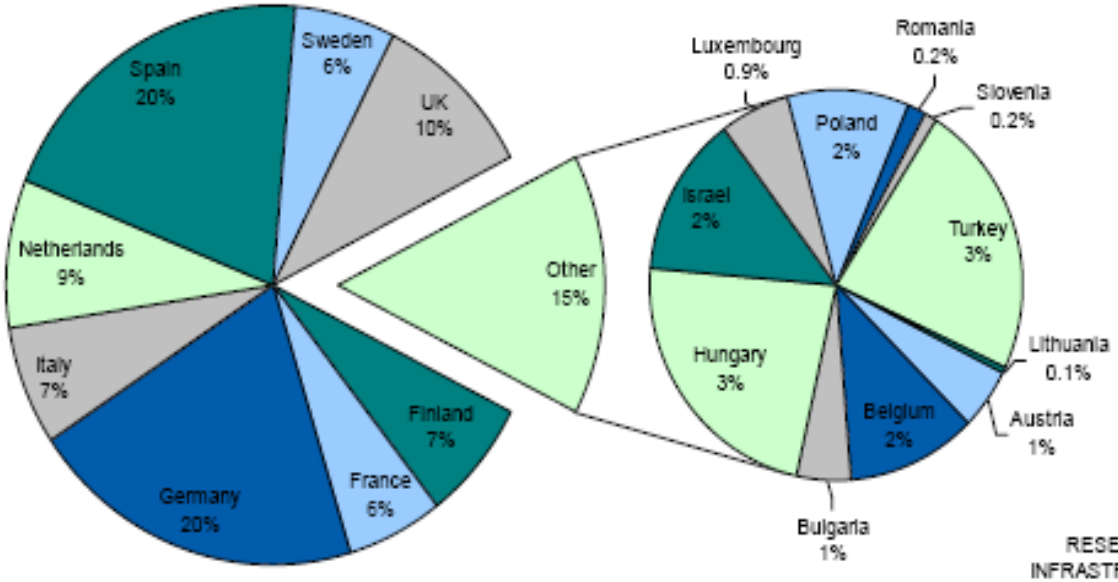
- EIB can participate in transactions usually through an EIB direct loan agreement. However, EIB typically prefers to co-finance with other financing partners (e.g. commercial banks, investors)
- In the case of co-financing EIB can provide a loan in parallel to the financing partners directly with the final beneficiary (with key contractual terms aligned) OR…
- …can provide a guarantee to the financing partners and thereby share the credit risk and enable capital relief. The guarantee can also be complemented by EIB funding (in order to generate additional Financial Value Added)

Syndicated Lending:

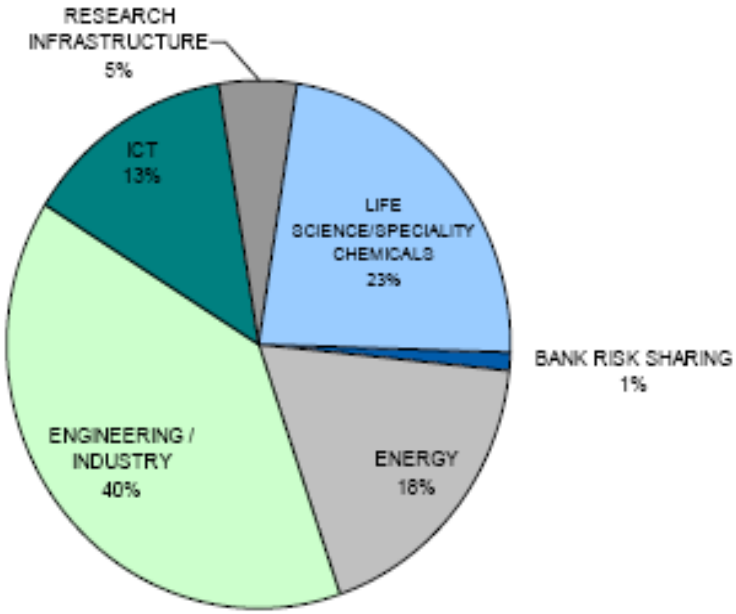
- EIB can participate in syndicates, though some limiting factors can apply (i.e. EIB cannot extend funding to HoldCos in acquisition structures, only to OpCos; EIB still needs a side agreement that the company will execute the defined project, etc.)

Sursa: *"Financing of European Research, Development and Innovation (RDI)"*, European Investment Bank, april 2010

RSFF Signatures 2007 - 2010



To date RSFF operations have been signed in 19 countries



Engineering/Industry & Life Science account for more than 60% of signatures

Sursa: *"Financing of European Research, Development and Innovation (RDI)"*, European Investment Bank, april 2010