2\textsuperscript{nd} Interregional Event

DOSSIER
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Introduction

FINERPOL is a partnership project of nine European countries, with Spanish company Extremadura Energy Agency as a Leading partner. The project also involves other agencies and governing bodies from Czech Republic, Great Britain, Greece, Italy, Portugal and Germany. The project is co-financed by the European Union through the European Regional Development Fund (ERDF) under territorial cooperation INTERREG EUROPE with a budget allocation of more than one million euros. Total duration of the project is 48 months, termination is scheduled for 2020.

During this time, one of the main objectives of this project is for the partners to meet and share their local experience and best practices to learn from each other. In accordance with obtaining this objective, the second Interregional event in Prague took place, as well as Steering Committee.

2nd Interregional Event Summary

As mentioned above, 2nd Interregional Event was organized to seek mainly the aims of interregional experience exchanging and ideas sharing. Therefore, many FINERPOL partners, such as members of Extremadura Energy Agency, Plymouth City Council, University Centre for Energy Efficient Buildings of Czech Technical university in Prague, Climate Protection and Energy Agency of Baden Württemberg, Autonomous Province of Trento and the host of Interregional event City of Prague met in Prague for this event.

Especially relevant to the topic of project were two study visits that were conducted during the event. The buildings that served as examples of energy efficient buildings were the seat of University Centre for Energy Efficient Buildings (UCEEB) of Czech Technical University in Prague and Amazon Court that is used mainly as an office block building.

In a framework of the project topic, a conference on “Attractiveness and Use of Financial Instruments in the Czech Republic” was organized for the stakeholders and wider public. During the conference many experts delivered presentations on given topic and the discussion followed. Both study visits and conference will be closely described later in this dossier.

Event Summary

Date: 21st September to 23rd September 2016

Location Prague Czech Republic
## Agenda

### 21 September 2016

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>20:00</td>
<td>Welcome drink</td>
<td>Café Louvre Gallery, Národní třída 20, 110 000, Prague 1</td>
</tr>
</tbody>
</table>

### 22 September 2016

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 – 14:00</td>
<td>Conference</td>
<td>Old Town Hall – Hall of Architects, Staroměstské náměstí 1/3, 110 00 Prague 1</td>
</tr>
<tr>
<td>14:30 – 17:00</td>
<td>Study visit</td>
<td>University Centre for Energy Efficient Buildings in Buštěhrad</td>
</tr>
<tr>
<td>20:00</td>
<td>Sightseeing cruise with a dinner</td>
<td>Čechův most, Dvořákovo nábřeží, pier Nr. 5, Prague 1</td>
</tr>
</tbody>
</table>

### 23 September 2016

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00 - 12:00</td>
<td>Study visit</td>
<td>Amazon Court, Rohanské nábřeží 661/5, Prague 8</td>
</tr>
<tr>
<td>12:00 – 12:30</td>
<td>Lunch</td>
<td>Old Town Hall – Small Conference Room, Staroměstské nám. 1/3, Prague 1</td>
</tr>
<tr>
<td>12:30 – 14:30</td>
<td>Steering Committee</td>
<td>Old Town Hall – Small Conference Room, Staroměstské nám. 1/3, Prague 1</td>
</tr>
<tr>
<td>16:00</td>
<td>Prague Sightseeing Tour</td>
<td></td>
</tr>
<tr>
<td>19:00</td>
<td>Common Dinner</td>
<td>Bellevue restaurant, Smetanovo nábřeží 329/18, 110 00 Praha-Staré Město</td>
</tr>
</tbody>
</table>
Conference on “The Attractiveness and Use of Financial Instruments in the Czech Republic”

During the Interregional event, there was held a conference on “the Attractiveness and Use of Financial Instruments in the Czech Republic”. The topic was carefully chosen, taking into account the purpose of the project, as well as the aim of exchanging local experience. The conference was widely attended by stakeholders and also by a few members of wider public. Except the members of FINERPOL partners and stakeholders, from the Czech Republic was the conference attended by members of relevant institution such as City of Prague, Ministry of Regional Development, Government of the Czech Republic, as well as many other financial institution and professional association.

**Agenda**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 – 9:30</td>
<td>Registrations of the participants</td>
</tr>
<tr>
<td>9:30 – 9:45</td>
<td>Keynote speech by PhDr. Jan Hauser, director of EU Funding Department of City Hall of Prague</td>
</tr>
<tr>
<td>9:45 – 10:45</td>
<td>1st part of the interregional event on “The attractiveness and use of financial instruments in the Czech republic”</td>
</tr>
<tr>
<td>9:45 – 10:05</td>
<td>Ing. Peter Šimo (Arthur D. Little) – OP PGP (OP Prague Growth Poll of the Czech republic) - Ex-ante Assessments of Financial Instruments</td>
</tr>
<tr>
<td>10:05 – 10:25</td>
<td>Ing. Jan Vaňkát (Ministry of Regional Development) - Financial Instruments for ESI funds from National Coordination Authority (NCA) point of view</td>
</tr>
<tr>
<td>10:45 – 11:15</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>11:15 – 12:00</td>
<td>2nd part of the interregional event on “The attractiveness and use of financial instruments in the Czech republic”</td>
</tr>
</tbody>
</table>
12:00 – 12:30  Lunch break
12:30 – 14:00  Discussion

Photos
Project description

UCEEB is a multidisciplinary research facility of the Czech Technical University in Prague. The facility is focused not only on research and preparation of young professionals for practical careers, as the centre has unique opportunities for students to take part in international academic project and offer many comprehensive educational programmes, but also on commercialization of research results, co-operation with the industry and advancement of innovation.

UCEEB research facility focuses mainly on research with high application potential, therefore the technicians are proactively identifying potential products in the research portfolio and offering them to commercial companies.
Building description

The entire UCEEB building is an example of the use of the latest energy efficiency trends and technology. The Centre’s main facility was designed as a low-energy building using natural renewable construction materials - mostly wood.

Considering the use of the daylight, the East to West main longitudinal axis enables the placement of solar devices on the South-oriented section (solar panels on the main space’s 34°- inclined rooflights, a 360 sq. m solar air collector on its South facade), while ensuring ample daylight for the laboratory section and the main testing space (through North-facing rooflights).

Taking into account the energy efficiency concept, the experiments that are conducted in the UCEEB building are supposed to facilitate in the future full scale testing, enabling results providing accurate information on functional parameters of individual materials, structures, energy management systems and intelligent control systems, including impact on both the interior climate and the environment as a whole. To this end, an energy management system has been designed for the building to serve as an experimental bed to test the interaction of energy sources with the building itself and the energy grid.

The concept for the energy supply (electricity, heating and cooling) was not based on using sustainable energy at all costs, but aims to provide enough capacity for research activities in an efficient way. Renewable energy will be provided by an experimental array of photovoltaic panels with a peak output of approximately 40 kWp, installed on the roof. The core of the building’s energy centre, however, is a cogeneration gas micro turbine with an output of 65 kWe/120 kWt, which will cover the variations in the supply of energy from the photovoltaic system. Another gas micro turbine with an electrical output of 30 kWe will be used for experimental purposes only. The UCEEB facility will also include two electric car charging stations.

Other technology in the energy centre is provided for efficient use of the heat produced by the micro turbine in the course of the year. To balance the difference between produced and consumed heating energy, a thermally-insulated large volume pressure energy store (20 cubic m) with a turbine will be installed under the ground next to the building and further two 5 cubic m stores will be provided in the energy centre itself. Each of these stores can be separately disconnected for experimental purposes. Two natural gas boilers with a total heating output of 216 kWt will be installed as a backup source. Secondary cooling for the gas micro turbine will be provided by two dry cooling units installed on the roof. During winters, the heating energy from the micro turbine will be used to heat the building and hot utility water, during summers it will be used to cool the three cascaded absorption units with a cooling output of 16 kWc, 34 kWc and 61 kWc respectively. The smallest of those cooling units can be disconnected for experimental purposes (solar cooling). A block compressor cooling unit with an output of 180 kWc will be used as a secondary cooling energy source. It is expected that the absorption units will be run at all times and the compressor cooling units will only be used to cover peak cooling demands. Two 2.5 cubic m cooling energy stores will be provided for the absorption units.
The central cooling energy source (absorption units and the compressor unit) will also provide cooled water which will be necessary for certain laboratory equipment and for FanCoil units in the administrative section.

Other remarkable innovation is significant in the UCEEB building - simplified energy flow. The energy centre is connected by pipeline to the RP2 laboratories (Energy systems in buildings for the purpose of full scale experiments). Most of the energy centre's equipment shall be monitored and evaluated as part of the parent I&C system, with their operational parameters (production and consumption of energy) monitored to verify the functionality of proposed concepts and further optimisation of installed energy sources' controls.


Photos
Study visit 2 – Amazon Court

The building Amazon Court, that was visited during the second study visit, is remarkable mainly for its excellent natural daylight and integrated support facilities. Amazon Court is a seven-store, environmentally friendly building that is energy efficient with natural, low ‘cost in use’ ventilation.

The environmental targets set for Amazon Court are based on „best practice“ design using low-energy principles coupled with minimized servicing complexity, with the aim of achieving a low-cost in use development. It saves a significant amount of energy costs compared to a conventional office building.

Air is drawn from the cleaner, river side of the building via special inlet turrets. The air is treated in a special underground facility and then passes through risers to the different floor zones.

The climate control system supplies 100 % fresh air during full occupancy and is based on three to four air changes per hour. This is considerably more fresh air than average air conditioning systems where only ¼ air changes are generally provided. The windows have high performance solar control glazing which provides excellent reduction in solar heat transmission.

Very high levels of daylight are maintained within the atrium, which helps to provide excellent natural light for the whole building.

Source: http://amazoncourt.com/index2.html
Steering committee

During Prague Interregional Meeting the Steering committee was held. Partners were talking about important topics connected to the project. Addressed topics and issues can be seen in the following agenda.

Agenda

Venue: Old Town Hall – Small Conference Room (Staroměstské nám. 1/3, Prague 1)

Topics to be addressed:

- Project and financial management
- Technical and financial progress report
- Template best practise
- Contracts between partners
- Output: Action plan clarification
- Dissemination and publicity
- Q&A
OP Prague Growth Poll is consisting of 4 priority axes, containing 10 specific objectives and 23 supported activities
The results of „Stop Criteria“ application

Based on analysis of programme documentation OP PGP were selected 6 supported activities, where was identified high potential of meeting the demands for finance instruments using

<table>
<thead>
<tr>
<th>Priority axis number</th>
<th>Supported activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority axis number 1</td>
<td>SC 1.1    SC 1.2</td>
</tr>
<tr>
<td></td>
<td>Supporting activities for „proof of concept“ commercialization</td>
</tr>
<tr>
<td>Priority axis number 2</td>
<td>SC 2.1    SC 2.2</td>
</tr>
<tr>
<td></td>
<td>Improving the quality and efficiency of the functioning of STPs, including incubators</td>
</tr>
<tr>
<td>Priority axis number 3</td>
<td>SC 3.1    SC 3.2    SC 3.3    SC 3.4</td>
</tr>
<tr>
<td></td>
<td>Development of innovation companies in the beginning of their foundation</td>
</tr>
<tr>
<td>Priority axis number 4</td>
<td>SC 4.1    SC 4.2</td>
</tr>
<tr>
<td></td>
<td>Energy effectiveness increasing … public city transport</td>
</tr>
<tr>
<td></td>
<td>Increasing energy efficiency … urban road transport</td>
</tr>
<tr>
<td></td>
<td>Implementation of pilot projects converting to energy-intensive public buildings</td>
</tr>
</tbody>
</table>

List of ex-ante assessment criteria

Selection of supported activities for financial instruments took place in two phases. Activities that went through „STOP criteria“ phase were assessed based on experience from OP Prague Growth Poll and other OP in the Czech Republic

**Basic STOP criteria application**

**(for all 23 supported activities)**

1) Assessment based on projects returning, finance demands, public supports regimes etc.

**Detailed assessment**

**Supported activities with the potential of using financial instruments, that will be analyzed in connection with market failure**

1) Conditions in other OP in the Czech Republic

**Potential to generate positive financial flowings (or costs savings)**

**Financial extent of the project and its investment character**

**Experience from calls for OP PGP**

**Interreg Europe | 2\textsuperscript{nd} Interregional Event REPORT | 19**
Developing innovative companies in the early stages of their „life-cycle“

The introduction of FI to support innovative SMEs in the development phase of the life cycle in the City. m. Prague assumes an already existing program document OP PPR

<table>
<thead>
<tr>
<th>Criterion Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Results of OP PGP calls</strong></td>
</tr>
<tr>
<td>OP PGP anticipates the use of financial instruments to support SME finance and the absence of a financial instrument has not yet announced any challenge</td>
</tr>
<tr>
<td>The introduction of financial instruments to support innovative SMEs in the development phase of the life cycle in the capital city of Prague assumes an already existing programme document OP PGP</td>
</tr>
<tr>
<td><strong>Conditions in other OP in the Czech Republic</strong></td>
</tr>
<tr>
<td>Supporting developing SMEs in the regions outside the capital city of Prague will be realized within the PIK in the form of financial instruments - concessional loans, guarantees and capital inputs (venture capital)</td>
</tr>
</tbody>
</table>

Supported activity is a subject of further analysis of FI use

Supporting „proof-of-concept“ projects shows a lot of potential in using FI. This kind of a support is made for the same kind of project in OP that are not made for Prague

<table>
<thead>
<tr>
<th>Criterion Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Results of OP PGP calls</strong></td>
</tr>
<tr>
<td>There is a demand in the call for financing exceeding allocation</td>
</tr>
<tr>
<td>Research among potential applicants proved precondition of high demand for financing in upcoming calls OP PGP</td>
</tr>
<tr>
<td>Most of the universities and research organizations in located in the capital city of Prague and we can expect higher rate of competition for financial means</td>
</tr>
<tr>
<td>For projects where the initial validation phase demonstrated a positive result, we can assume the successful commercialization of the results and financial returns in the longer term</td>
</tr>
<tr>
<td><strong>Conditions in other OP in the Czech Republic</strong></td>
</tr>
<tr>
<td>Projects like “proof-of-concept” in the OP PIK will be financed in the form of non-repayable grants but also through financial instruments (capital inputs)</td>
</tr>
<tr>
<td>It would not be fair if research organizations in the City. m. Prague had a more favorable financing than their counterparts in the regions</td>
</tr>
<tr>
<td>Research organizations outside Prague could seek ways to implement a request for a non-refundable grant eg. in the form of an establishment registered in the capital city of Prague</td>
</tr>
</tbody>
</table>
Implementation of pilot projects converting to energy-intensive public buildings

On the basis of currently available information, not to recommend the imposition of a financial instrument. Author of the study, however, recommends a re-assessment during 2017

SC 2.1.3 Implementation of pilot projects converting to energy-intensive public buildings

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Statements</th>
</tr>
</thead>
</table>
| Results of OP PGP calls                       | - Prague at the time of updating the ex-ante assessment of the FN did not have an overview of municipal buildings, which have the potential to meet the stringent requirements for the transformation of objects into intelligent buildings.  
- Type of projects focused on intelligent buildings generally require significantly higher investment costs than conventional projects, implementation of energy savings in buildings, which greatly extends the return on investment (usually over 30 years)  
- Operational Programme projects defines as a "pilot" and does not expect the high demand for financing large-scale transformations of buildings in Prague |
| Conditions in other OP in the Czech Republic  | - Implementation of energy savings projects in urban buildings may be financed from OPE, which provides a subsidy combined with soft loans for buildings in Prague  
- The introduction of a financial instrument under the supported activity could lead to an outflow of demand for financing from the OP to PPR OPE offering funding for a much simpler types of projects  
- Failure to use a financial instrument OP PGP creates favorable conditions for the implementation of pilot projects intelligent buildings in the capital city of Prague |

Supported activity is not a subject of further analysis of FI use

Potential use of FN was detected in only two supported activities aimed at research, development and innovation. Prague may be seen as a city supporting research and innovation

Supported activities with the potential use of financial instruments

- SC 1.1 Support activities leading to commercialization of research results through feasibility and commercial potential and putting them into practice ("proof-of-concept")
- SC 1.2.3 Developing innovative companies in the „early stages of their life cycle”

Possibility of profiling Prague as a city that supports innovation
There was proposed allocation of 4.8 miles. EUR FI to support projects like "proof-of-concept" and the allocation of 5.0 miles. EUR FI pilot allocation designed to support innovative companies in Prague

<table>
<thead>
<tr>
<th>Specific aim</th>
<th>Supported activity</th>
<th>Suggested FI</th>
<th>Allocation SC (mil. EUR)</th>
<th>The proposed allocation range FI (mil. EUR)</th>
<th>Allocation for pilot implementation FI (mil. EUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC 1.1 - Higher degree of cross-sectoral cooperation stimulated by the regional government</td>
<td>SC 1.1.1: Support activities leading to commercialization of research results through feasibility and commercial potential and put them into practice (&quot;proof-of-concept&quot;)</td>
<td>Capital inputs</td>
<td>20.8(^1)</td>
<td>4.8</td>
<td>-</td>
</tr>
<tr>
<td>SC 1.2 - Easier creation and development of knowledge-intensive companies</td>
<td>SC 1.2.3: Developing innovative companies in the early stages of their life cycle</td>
<td>Capital inputs</td>
<td>20.8</td>
<td>5.0 – 8.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

\(1\) SC Allocation is not adjusted for any funding approved under the already completed challenge

Private investors show an aversion to risky investments in companies in the initial periods and carefully choosing their investments. Financial instrument should encourage greater investment volume

- Prague is a popular city for start-up companies
- Approximately 25% of innovative companies from the Czech Republic based in Prague
- In recent years, the infrastructure for supporting start-ups in the form of incubators, accelerators, co-workingových centers etc.

<table>
<thead>
<tr>
<th>The Supply Side</th>
<th>The Demand Side</th>
<th>The Market Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public resources to support SMEs are aimed at young innovative companies (there is risk capital)</td>
<td>Statistical data on the number of applicants for funding in Prague for young innovative companies point to the high demand for capital inputs</td>
<td>The questionnaire survey of SMEs underdeveloped and the number of seed investors, leading to limited access to seed funding</td>
</tr>
<tr>
<td>Funding for these companies from private sources are focusing Business Angels and Venture Capital Funds</td>
<td>The questionnaire of SMEs has not identified the need FI type of preferential loan or guarantee (see on the next slide)</td>
<td>Aversion of investors to invest in innovative but high-risk areas</td>
</tr>
<tr>
<td>Financing companies such as (pre-) seed in the Czech Republic (Prague) in European comparison lags behind</td>
<td></td>
<td>Information asymmetry generating Equity Paradox</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expected Absorption</th>
<th>Financial instrument Draft</th>
<th>Allocation of the financial instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 – 38 %</td>
<td>Capital Inputs</td>
<td>5.0– 8.0 mil. EUR</td>
</tr>
</tbody>
</table>
The preliminary draft of the implementation arrangement envisages the inclusion into the upcoming FN structures NIF as sub koinvestičního Fund and Venture Capital Fund Proof-of-Concept.

**Implementation arrangement draft**

- MIT (Ministry of industry and Trade)
- European Investment Fund
- Transfer of know-how
- Investment council
  - NIF investment company, a.s.
- NIF IS
- Venture capital fund Coinvestment fund
  - Fund OP PIK
  - Fund OP PGP
- Proof-of-Concept Fund
  - Fund OP PIK
  - Fund OP PGP
- Successor Funds (2026+)
  - Depositary
  - Administrative

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International financial institution

- Solution for energy savings

Prague 22/09/2016

KB Group is the biggest partner for IFIs

Volume of signed contracts with EIB, EIF, CEB for the last 3 years in bn. CZK
(as of 31.12.2015)

ČS Group  ČSOB Group  others  KB Group
EuroEnergie – Savings for industry and services

List of current programmes

COSME, MICROFINANCE

start-up

Support for beginning entrepreneurs.
50%/80% guarantee from EIF.

EuroEnergie

Energy saving projects support.
80% guarantee from EIB with interest subsidies.

Program JESSICA

Energy savings support for housing.
Interest subsidies from ERDF.
energy Savings / Energy Efficiency in Buildings

new systems and the rehabilitation or extension of existing district heating systems

exchange (purchase) of heat production (boiler) for economical variant in terms of different fuels

energy management - metering and regulation, energy purchase, appropriate choice of tariffs etc.

high efficiency Co-Generation of Heat and Power
**EuroEnergie – Energy savings for industry and services**

- New systems and the rehabilitation or extension of existing district cooling systems
- Energy efficiency in industrial facilities and enterprises in general
- Solar Energy (PV and thermal), Biomass, Heat pumps

**How to obtain the EuroEnergie loan?**

**EU**
- Clients cooperate only with KB, KB takes care of necessary administrative work

**RO**
- KB is ready to consult individual cases

**EN**
- Transparent conditions for clients
  - Automatic involvement into the portfolio, delegated to KB, no long term evaluation
  - No hidden or uncertain conditions, all requirements in the loan documentation

**ER**
- Only necessary conditions are transferred to the loan agreements
  - Involvement of IFI
  - Consent with on-spot check, provision of documents/information

**GY**
- Our main aim is partnership with client
EuroEnergie – Guarantee with subsidy

<table>
<thead>
<tr>
<th>Guarantee</th>
<th>80%</th>
<th>CZK or EUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest rate Subsidy</td>
<td>30-40 b.p.</td>
<td>Min. 3Y maturity</td>
</tr>
<tr>
<td>Loan volume</td>
<td>1 mil. CZK</td>
<td>30 / 135* mil. CZK</td>
</tr>
</tbody>
</table>

* For SME or energy savings projects in buildings

Thank you for your attention

PETR GROSS
Public Support Programmes Project manager
Segments & Products
Marketing and Communication

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National Coordination Authority’s view of Financial Instruments funded by ESI funds

MINISTRY OF REGIONAL DEVELOPMENT
NATIONAL COORDINATION AUTHORITY

Jan Vaňkát

Content
1. Role of the National Coordination Authority
2. State-of-play of FIs
3. Options for simplification of FIs
4. Upcoming EC/EIB advisory events
1) Coordinating and advisory role of the National Coordination Authority

- Methodological guidance
- Working group for FIs
- Comments and consultations e.g. on:
  - Ex-ante assessments
  - Funding agreements
- Coordinating FIs-related events
2) State-of-play of FIs

State-of-play of FIs in CZ 2/2

- 2 more OPs to soon carry out ex-ante assessments
  - OP Employment
  - OP Research, Development and Education
## Envisaged energy efficiency FIs in OP Environment and IROP

<table>
<thead>
<tr>
<th>OP</th>
<th>Specific objective</th>
<th>Financial product</th>
</tr>
</thead>
<tbody>
<tr>
<td>OP Environment</td>
<td>SO 3.1 Prevention of waste</td>
<td>Combined product (loan + grant)</td>
</tr>
<tr>
<td></td>
<td>SO 3.2 To increase the proportion of material and energy use of waste</td>
<td>Loan (SO 3.5)</td>
</tr>
<tr>
<td></td>
<td>SO 3.5 Reduction of environmental risks and development of risk management systems</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SO 5.1 To reduce energy intensity of public buildings and to increase the use of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>renewable energy sources</td>
<td></td>
</tr>
<tr>
<td>IROP</td>
<td>SO 2.5 Reduction in energy consumption in the housing sector</td>
<td>Loan (alternatively loan combined with grant)</td>
</tr>
</tbody>
</table>

3) Where could be FIs simplified?
Options for simplification of FIs

- „Financial instruments in the Cohesion Policy“ workshop
- Series of workshops on Simplification of the implementation of Cohesion Policy
- 20/09/2016 in Brussels (SK PRES)

Public procurement limits the flexibility of FIs

- Allow alternative best practice selection procedures like calls for expression of interest
- CEoi should be mentioned in CPR
- Equal treatment of national institutions and EIB/EIF
- Allow direct award to National Promotional Banks
- Allow competitive selection procedure
- Open and transparent procedure without using public procurement
Rules for combination of FIs with grants are too strict

- Combination is needed for gradual shift from grant culture to revolving FIs
  - Expand the possibilities of combination in one operation
  - Simplify combination in two operations (only under FIs rules?)
  - Allow capital rebates or provide practical best practice on repayable assistance

FIs shouldn’t be administrative burden for all the stakeholders

- Simplify management and control requirements
- Evidencing that FIs expenditure was “used for its intended purpose”
  - Keeping receipted invoices or other accounting documents of equivalent probative value for investments of final recipients goes too far (approach used for non-repayable grants)
- Reporting requirements should be clear (definition of leverage) and less burdensome
Other complexity issues

- Less obligatory requirements for ex-ante assessments
- State aid rules should be simplified
  - Ideally one set of rules (ESIF, public procurement, state aid)
- Direct implementation of FIs by managing authority
  - Guidance and best practice examples are needed
- Using repayable assistance
  - Guidance and best practice examples also needed

EC/EIB response

- EC opened to suggestions, yet cautious
  - Different meanings of simplification
  - Finding balance between flexibility and legal certainty
  - Some new rules as answer to ECA findings (EAAs, tranching)
- EIB sees room for simplification
  - Too much regulation in 2014-2020
  - Use the Off-the-shelf FIs (state aid simplified)
4) Upcoming EC/EIB advisory events

Workshops with case studies

- 20/10/2016 in Vienna
  - Focus is on energy efficiency
    - Jessica II in Lithuania (renovation loan for multi-apartments, combination of loans with grants, EIB as fund manager)
    - French ESIF-EFSI combination (equity for projects supporting low-carbon economy)
- 15/11/2016 in Brussels
  - Focus on SME support
Thank you for your attention.

www.mmr.cz/en/
www.dotaceeu.cz/en/
OP PIK – Operational Programme Enterprise and Innovations for Competitiveness

- MIT is a major supporter of Czech industry and innovation via European and national programs. Main source of funding are ESIF
- **OP PIK 2014-2020** - allocation of € 4.3 billion
  - Strong accent on energy savings - contribution to the national Czech target of energy savings 50,67 PJ by 2020.
  - **Programme Energy Savings** (SC 3.2) – CZK 20,5 billion (€ 760 million)
  - **Programme Energy Savings in Heat Supply Systems** - CZK 3,8 billion (€ 140 million)
Ex ante assessment of financial instruments OP EIC

- Cooperation with Deloitte Advisory, s.r.o.
- Questionnaire survey addressed directly over **15 000 enterprises**, of which 1 077 replied
- Key conclusions of these surveys included findings of a strong need of preferential financial terms as an incentive for investing and increasing the competitiveness, mostly in case of SMEs.
- The survey also included **35 interviews** with representatives of the associations and experts in financial instruments
- **Two workshops** – over than **50 participants** representing the financial sector, professional associations, groups of final recipients and sectorial experts.

The logic of financial instruments aimed

<table>
<thead>
<tr>
<th>Risk / financial return</th>
<th>Financial measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>High return of investment, low risk</td>
<td>Commercial financing</td>
</tr>
<tr>
<td>Low financial return/ Higher risk</td>
<td>Financial instruments</td>
</tr>
<tr>
<td>Very low or negative financial return</td>
<td>EU subsidy or funding from the state budget</td>
</tr>
</tbody>
</table>

Acceptable economic value
Proposed financial instruments based on ex ante assessment conclusions

<table>
<thead>
<tr>
<th>Specific objective/PA Support programme</th>
<th>FI 1st generation</th>
<th>FI 2nd generation</th>
<th>Proposed margin or FI allocation (millions of EUR)</th>
<th>MA’s allocation for pilot FIs implementation (EUR mil.)</th>
<th>Allocation for OP EIC specific target (EUR mil.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2 – Improving the intensity and efficiency of cooperation in research, development and innovation</td>
<td>Proof of Concept</td>
<td>Equity investment</td>
<td>21-42</td>
<td>12</td>
<td>377.7</td>
</tr>
<tr>
<td>2.1 – Enhancing competitiveness of start-ups and developing SMEs</td>
<td>Expansion</td>
<td>Soft loans and guarantees</td>
<td>322-436</td>
<td>327</td>
<td>609.4</td>
</tr>
<tr>
<td>3.2 – Improving the energy efficiency of the business sector</td>
<td>Venture capital</td>
<td>Equity investment</td>
<td>30-60</td>
<td>53</td>
<td>-</td>
</tr>
<tr>
<td>3.5 – Improving the efficiency of the systems for heat supply</td>
<td>Energy savings in SHS</td>
<td>Soft loans</td>
<td>11-25</td>
<td>11</td>
<td>142.9</td>
</tr>
</tbody>
</table>

Financial instruments in energy savings

- **Typical field for financial instruments** – projects generate some return, but have often rather longer rate of returns comparing to business standard and low preference in company agenda – need of extra incentivization

- **Pilot programmes with small allocation** – testing the new form of support

- **For SMEs as well as large companies**

- **Financial products similar to loans for SME in the Programme Expansion** – proved cooperation with Českomoravská záruční a rozvojová banka, a.s. (ČMZRB) – state-owned bank

- ČMZRB has long experiences with loans and guarantees for SMEs.
Implementation scheme of the OP EIC Loan Fund

Parameters of the financial products

- **Preferential loan** – credit product with **preferential interest rate** (0%), **covering up to 50% of the eligible costs**
  - grace period up to 3.5 years, maturity 7 years
  - For the best projects can be extended to 10 years maturity and 6 years grace period
- Commercial co-financing required (at least 20% of eligible costs)
- Combination with grant support:
  - **grant for energy audit** (50-70%)
  - **interest rate subsidy** (covering interests from the mandatory commercial loan for private co-financing – max. 10% of the loan and CZK 7 million) – conditioned by achieving the target savings
Application and selection criteria

- Applicant deals only with the ČMZRB
- Application has to include certified energy audit of the project – which approves fulfilment of the selection criteria
- **Selection criteria for the project** (energy aspects):
  - Costs of the CO2 reduction (Kč/kg CO2)
  - Energy savings (%)
  - Bonus for the renewables and cogeneration
  - IRR
- Bank shall evaluate the applicant and his creditworthiness – then sign the credit agreement – standard commercial process
- Calls for proposals are continual – ČMZRB accepts all who meet the criteria

Benefits for final recipients

- Project financing without costs for interests (still significant for SMEs)
- Relieved cash-flow during the project realization because of grace-period and longer maturity – does not burden capacity for other commercial credits
- Co-financed preparation of the project (energy audit)
- Much easier for final recipients - less regulated, less administratively demanding than grants
Specific target 3.2 – Energy efficiency for entrepreneurial sector - Supported activities

- Modernization and reconstruction of the power, heat and gas distribution within the buildings and production plants
- Establishment of the systems of measurement and regulation
- Modernization and reconstruction of the existing devices for energy production for the own consumption leading to increased efficiency
- Modernization of the lighting systems within the buildings and production plants (LED etc.)
- Measures for the higher energy efficiency of the buildings in the entrepreneurial sector
- Use of the waste energy in production processes
- Increasing of the energy efficiency in the production processes
- Installation of renewable sources of energy for the own consumption
- Installation of cogeneration unit for the own consumption
- Support of additional costs to achieve the passive energy standard of the entrepreneurial building by construction or reconstruction

Specific target 3.5 – Energy efficiency in SHS-
Supported activities

- Installation and modernization of high efficiency cogeneration units for natural gas in district heating systems, and related costs
  - Complementary to grant support – allowed only for complex projects where majority of eligible expenditures cover district heating systems (distribution infrastructure)
Complementarity of grants and financial instruments

- Energy efficiency programmes use both grants and financial instruments on complementary base
  - Split of allocation, separated calls for proposals
- How to effectively divide the projects for each form of support in SO 3.2?
  - Multi-criteria assessment of the projects, energy audits - preference of more complex and achieving projects for grants
  - Criterion of Internal Rate of Return (IRR) – projects with IRR above 15 % will not be allowed to get the grant support but can apply for the soft loan
  - Soft loans offer more flexible support with less administrative burden

Programme ENERG

- Soft loans analogous to financial instruments in OP PIK covering the areas not supported in OP PIK (mainly Prague)
- Funded from the Emissions trading
Perspectives of financial instruments in energy sector

- Revolving effect of the financial instruments shall create and "evergreen" funding structure which can be used over and over for support of the energy efficiency
- More sources are expected for the financial instruments, other types of instruments are to be considered too
- Effective combination of public and private sources shall allow greater effectiveness of the public money
- Financial instruments shall continually shift the market from "grant addiction"

Thank you for your attention!
FINANCIAL INSTRUMENTS IN THE CZECH REPUBLIC AND ABROAD

(22 September 2016 - Prague)

Jiří Karásek
SEVEN, The Energy Efficiency Center

AGENDA

- Types of Financial Instruments
- Recommendations for the countries within ESIB project
- Energy performance contracting procedures
- Challenges for the future
SUPPORTING SCHEMES

Financial Mechanisms
- Direct subsidies
- Non-commercial loans
- Interest rate subsidies
- Tax Mechanisms (reductions, rebates, ...)
- Reduced VAT rates
- Risk guarantees
- White certificates
- Energy efficiency obligations (art. 7 EED)
- Energy Performance Contracting (EPC)

ESIB (ENERGY SAVING INITIATIVE IN BUILDINGS SECTOR) – PROJECT FOR EUROPE AID IN INOGATE COUNTRIES

Target
- Financial instruments to increase market uptake of energy savings and RES.

Map of INOGATE regions
RECOMMENDATIONS – ESIB PROJECT

Georgia

- Potential incentive is development of the state guarantee for the EE projects in the building sector.
- EE fund - Establishing of the small EE fund funding small scale EE measures trough the short term loans could finance the most effective EE measures (e.g. Efect programme in the Czech Republic).

Tajikistan

- Focus on low cost but effective EE measures. E.g. short term loans for reparation works before heating season. The sector HVAC mainly cooling systems should be considered as priority in the future.

EXAMPLES OF RECOMMENDATIONS – ESIB PROJECT

Belarus

- Slow deregulation of subsidized energy and using of saved financial sources for providing of energy efficiency increasing measures would open the EE market. Leading role of state is crucial in EE improvement.
- Subsidy of energy audits and energy performance certificates is recommended, the energy audits need exact technical methodology and procedure to be comparable.
- There is an experience with ESCO’s in the Republic of Belarus. ESCO’s experience will lead to possible establishment of guarantees for energy savings for provided EE measures and opening the Energy performance contracting market. The EPC market needs a strong support in the law (compare to EED).
EPC Basics

Client’s (&ESCo’s) extra benefit without EPC (= baseline)

Guaranteed savings (covering investments)

Benefit for client

Operating costs (energy, etc.)

Years

Saving measures implemented

Conclusion of EPC contract

End of EPC contract

Transparence EPC survey in Europe

Transparence EPC survey in Europe

www.transparence.eu/eu/epc-databases
Transparense EPC survey in Europe

EPC process
Main stages of EPC process

- Decision to use EPC
- Contract close
- Implementation of other measures
- Guaranteed operation

- Project identification
- Preliminary analysis
- Procurement procedure
- Installation of measures

- Data collection, negotiations
- Proposal of EE measures
- Verification of data, tender dossier
- Management of installation

- M&V of energy savings

www.transparense.eu/eu/epc-databases
EPC process
Timing of EPC process

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Task Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 - 6 months</td>
<td>Project identification &amp; preliminary negotiation with the management (by facilitator)</td>
</tr>
<tr>
<td>2 - 4 months</td>
<td>Preliminary analysis – technical &amp; economic feasibility of EPC for the project (by facilitator)</td>
</tr>
<tr>
<td>4 - 6 months</td>
<td>Decision to use EPC</td>
</tr>
<tr>
<td>2 - 6 months</td>
<td>Procurement procedure</td>
</tr>
<tr>
<td>1 - 2 months</td>
<td>EPC contract close</td>
</tr>
<tr>
<td>6 - 10 years</td>
<td>Installation &amp; implementation of EE measures</td>
</tr>
<tr>
<td>1 - 2 months</td>
<td>Trial operation</td>
</tr>
<tr>
<td>6 - 10 years</td>
<td>Guaranteed operation</td>
</tr>
<tr>
<td>6 - 10 years</td>
<td>Final balance report</td>
</tr>
</tbody>
</table>

PROJECT EPC+

- The Energy Performance Contracting Plus project (EPC+) fosters cooperation between SMEs to offer high quality energy services. Furthermore the project aims at a standardisation of technical and contractual issues:
- Creation of SME Partnerships for Innovative Energy Services (SPINS).
- Each SPIN will consist of a network of, at least, three SMEs offering jointly tailored EPC services.
- The development of commercial, standardised energy service packages which will target SMEs interested in improving their energy performance.
- Implementation of pilot projects in each of 11 partner countries.
- Development of an international platform to support collaborative networks and innovation.
- Project provides training courses and materials for SPINs. See our website: [http://czech.epcplus.org/](http://czech.epcplus.org/)
CHALLENGES FOR THE FUTURE

Find solutions for each target group
- Public/Private
- Municipalities
- Industry
- Vulnerable consumers/energy poverty

Suitable range and market uptake of measures
- Payback period of the projects?
- Deep renovations?

Increase impact of the financial sources
- Guarantees?
- EE Fund or combined approaches?

Thank you for your attention!

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