



## 2<sup>nd</sup> 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.

## 2<sup>nd</sup> Interregional Event Summary

As mentioned above, 2<sup>nd</sup> 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: 21<sup>st</sup> September to 23<sup>rd</sup> September 2016

Location Prague Czech Republic



## Agenda

### 21 September 2016

Time	Activity	Location
20:00	Welcome drink	Café Louvre Gallery, Národní třída 20, 110 000, Prague 1

### 22 September 2016

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

### 23 September 2016

Time	Activity	Location
10:00 - 12:00	Study visit	Amazon Court, Rohanské nábřeží 661/5, Prague 8
12:00 – 12:30	Lunch	Old Town Hall – Small Conference Room, Staroměstské nám. 1/3, Prague 1
12:30 – 14:30	Steering Committee	Old Town Hall – Small Conference Room, Staroměstské nám. 1/3, Prague 1
16:00	Prague Sightseeing Tour	
19:00	Common Dinner	Bellevue restaurant, Smetanovo nábřeží 329/18, 110 00 Praha-Staré Město



## 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

<b>9:00 – 9:30</b>	Registrations of the participants
<b>9:30 – 9:45</b>	Keynote speech by PhDr. Jan Hauser, director of EU Funding Department of City Hall of Prague
<b>9:45 – 10:45</b>	<b>1<sup>st</sup> part of the interregional event on “The attractiveness and use of financial instruments in the Czech republic”</b>
<b>9:45 – 10:05</b>	Ing. Peter Šimo (Arthur D. Little) – OP PGP (OP Prague Growth Poll of the Czech republic) - Ex-ante Assessments of Financial Instruments
<b>10:05 – 10:25</b>	Ing. Jan Vaňkát (Ministry of Regional Development) - Financial Instruments for ESI funds from National Coordination Authority (NCA) point of view
<b>10:25 – 10:45</b>	Ing. Mgr. Pavel Laube (Ministry of Industry and Trade) – MIT Financial Instruments for Supporting Energy Savings
<b>10:45 – 11:15</b>	Coffee Break
<b>11:15 - 12:00</b>	2 <sup>nd</sup> part of the interregional event on “The attractiveness and use of financial instruments in the Czech republic”
<b>11:15 – 11:35</b>	Ing. Jiří Karásek, Ph. D. (SEVEN) - Different Kinds of Financial Tools in Czech Republic and Abroad
<b>11:35 – 11:55</b>	Ing. Petr Gross (Komerční banka) – International Financial Institution - Solution for Energy Savings



**12:00 – 12:30** Lunch break

**12:30 – 14:00** Discussion

## Photos











## Study visit 1 - University Centre for Energy Efficient Buildings



### 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.

Source: <http://www.uceeb.cz/en/uceeb-building>

## 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.

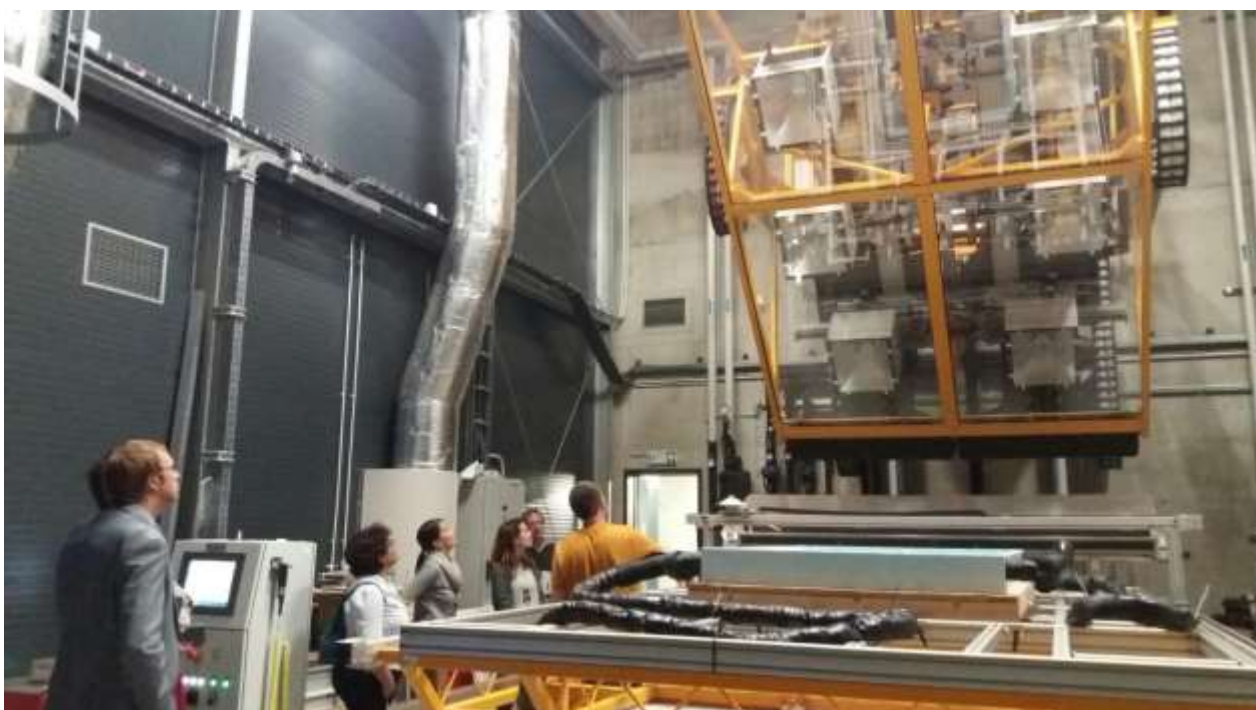
Very high levels of daylight are maintained within the atrium, which helps to provide excellent natural light for the whole building.

Source: <http://amazoncourt.com/index2.html>



## Photos











## 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





## Annexes – Presentations from the Conference

Ing. Petr Šimo – OP Prague Growth Poll – Ex-ante Assessment of Financial Instruments

**Arthur D Little**

# OP Prague Growth Poll

Ex-ante Assessment of Financial Instruments

22nd September 2016

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**Arthur D Little**

OP Prague Growth Poll

OP Prague Growth Poll is consisting of 4 priority axes, containing 10 specific objectives and 23 supported activities

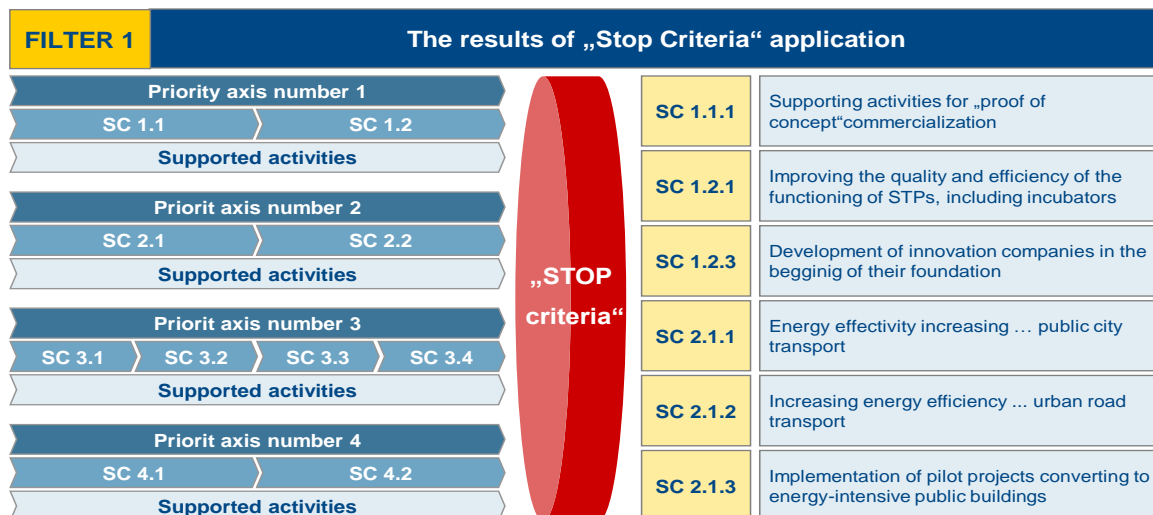
OP Prague Growth Poll			
Priority axis number 1	Priority axis number 2	Priority axis number 3	Priority axis number 4
Research, technological development and innovation promoting	Sustainable mobility and energy savings	Fighting poverty and social exclusion	Education and employment supporting
Higher rate of cooperation among different sectors encouraged by local regional administration	Energy savings in the urban buildings obtained with suitable renewable energy source and energy effective devices and smart managing systems using	Strengthening social infrastructure for integration, community service and prevention	Increasing capacity and quality of preschool, primary and high school education and creating facilities for children till 3rd year of age
Easier establishment and development of the knowledge-intensive companies	Increasing attractiveness of public transport commuting	Strengthening infrastructure for social entrepreneurship	Increasing quality of education through promoting inclusion in multicultural society
		Strengthening activities for integration, community service and prevention	Better accessibility of facilities focused on child care

Note: OP Prague Growth contains also 5th priority axis called „Technical support“

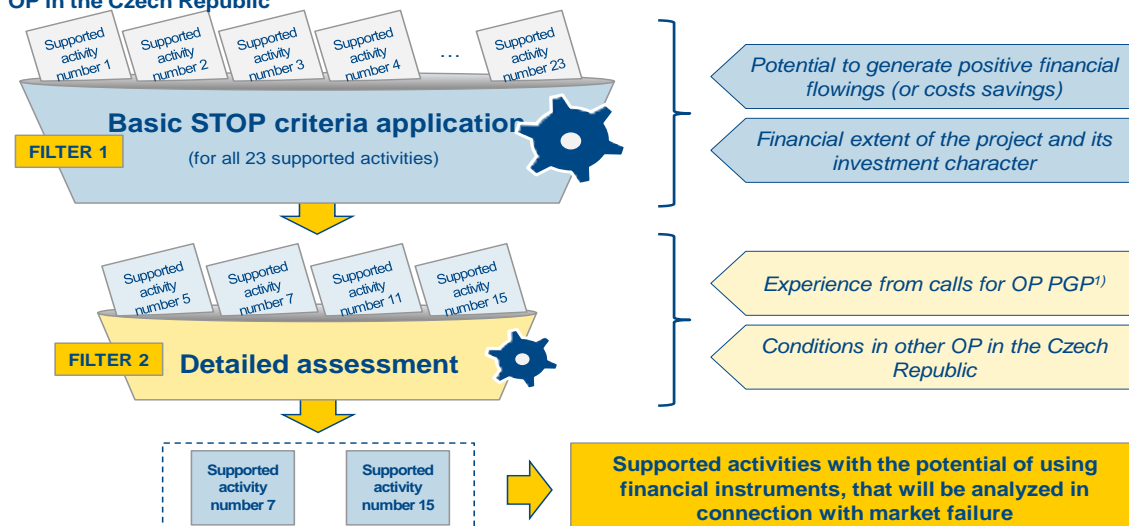




Based on analysis of programme documentation OP PGP were selected 6 supported activities, where was identified high potential of meeting the demands for finance instruments using



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



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





## Arthur D Little

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

### SC 1.2.3 Developing innovative companies in the early stages of their „life-cycle“

Criterion	Statements
Results of OP PGP calls	<ul style="list-style-type: none"> <li>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</li> <li>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</li> </ul>
Conditions in other OP in the Czech Republic	<ul style="list-style-type: none"> <li>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)</li> </ul>

Supported activity is a subject of further analysis of FI use



1

## Arthur D Little

Supporting activities for „proof-of-concept“ commercialization

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

### SC 1.1.1 Supporting activities for „proof-of-concept“ commercialization

Criterion	Statements
Results of OP PGP calls	<ul style="list-style-type: none"> <li>There is a demand in the call for financing exceeding allocation</li> <li>Research among potential applicants proved precondition of high demand for financing in upcoming calls OP PGP</li> <li>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</li> <li>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</li> </ul>
Conditions in other OP in the Czech Republic	<ul style="list-style-type: none"> <li>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)</li> <li>It would not be fair if research organizations in the City. m. Prague had a more favorable financing than their counterparts in the regions</li> <li>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</li> </ul>

Supported activity is a subject of further analysis of FI use



1



## Arthur D Little

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

Criteria	Statements
Results of OP PGP calls	<ul style="list-style-type: none"> <li>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.</li> <li>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)</li> <li>Operational Programme projects defines as a "pilot" and does not expect the high demand for financing large-scale transformations of buildings in Prague</li> </ul>
Conditions in other OP in the Czech Republic	<ul style="list-style-type: none"> <li>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</li> <li>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</li> <li>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</li> </ul>

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



1

## Arthur D Little

Supported activities for detailed analysis in the context of ex-ante assessment

**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



**Possibility of profiling Prague as a city that supports innovation**



1



## Arthur D Little

### Draft financial instruments and recommended allocation

There was proposed allocation of 4.8 mil. EUR FI to support projects like "proof-of-concept" and the allocation of 5.0 mil. EUR FI pilot allocation designed to support innovative companies in Prague

Draft financial instruments and recommended allocation <span style="float: right;">Preliminary draft</span>					
Specific aim	Supported activity	Suggested FI	Allocation SC (mil. EUR)	The proposed allocation range FI (mil. EUR)	Allocation for pilot implementation FI (mil. EUR)
<b>SC 1.1 - Higher degree of cross-sectoral cooperation stimulated by the regional government</b>	SC 1.1.1: Support activities leading to commercialization of research results through feasibility and commercial potential and put them into practice ("proof-of-concept")	Capital inputs	20,8 <sup>1)</sup>	4,8	-
<b>SC 1.2 - Easier creation and development of knowledge-intensive companies</b>	SC 1.2.3: Developing innovative companies in the early stages of their life cycle	Capital inputs	20,8	5,0 – 8,0	5,0

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



1

## Arthur D Little

### Developing innovative companies in the early stages of their life cycle

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

#### SC 1.2.3 Developing innovative companies in the early stages of their life cycle

- 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.

The Supply Side	The Demand Side	The Market Failure
<ul style="list-style-type: none"> <li>■ <b>Public resources</b> to support SMEs are aimed at young innovative companies (there is risk capital)</li> <li>■ Funding for these companies from private sources are focusing Business Angels and Venture Capital Funds</li> <li>■ Financing companies such as (pre-) seed in the Czech Republic (Prague) in European comparison <b>lags behind</b></li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Statistical data</b> on the number of applicants for funding in Prague for young innovative companies point to the high demand for capital inputs</li> <li>■ The questionnaire of SMEs has not identified the need FI type of preferential loan or guarantee (see on the next slide)</li> </ul>	<ul style="list-style-type: none"> <li>■ The questionnaire survey of SMEs <b>underdeveloped</b> and the number of seed investors, leading to limited access to seed funding</li> <li>■ Aversion of investors to invest in innovative but high-risk areas</li> <li>■ Information asymmetry generating Equity Paradox</li> <li>■ Lack of high-quality projects that meet the minimum requirements of institutional investors</li> </ul>
<b>Expected Absorption</b>	<b>Financial instrument Draft</b>	<b>Allocation of the financial instrument</b>
24 – 38 %	Capital Inputs	5,0– 8,0 mil. EUR



1

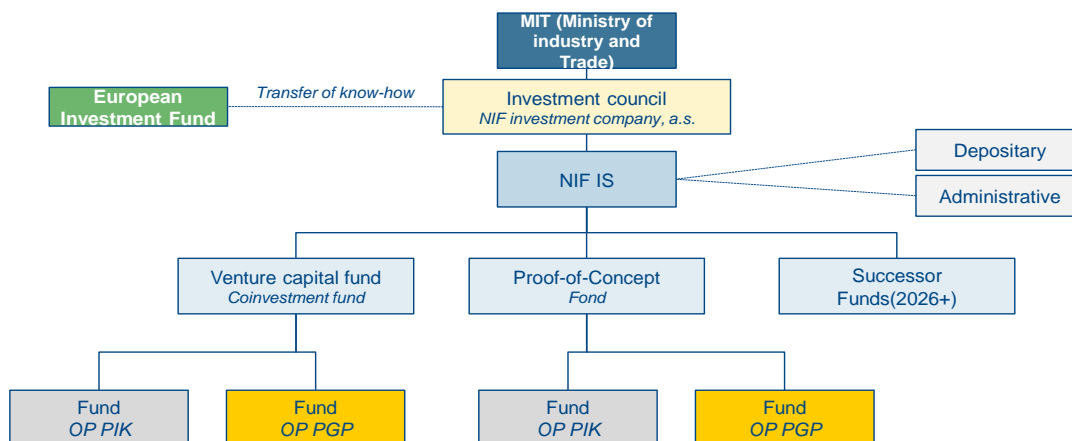


## Arthur D Little

The preliminary draft of the implementation arrangement

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



11

## Arthur D Little

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Ing. Petr Gross – International Financial Institution – Solution for Energy Saving

Petr Gross – Komerční banka, a.s./ Marketing and Communication

# International financial institution - Solution for energy savings

Prague 22/09/2016

NA PARTNERSTVÍ ZÁLEŽÍ



**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)



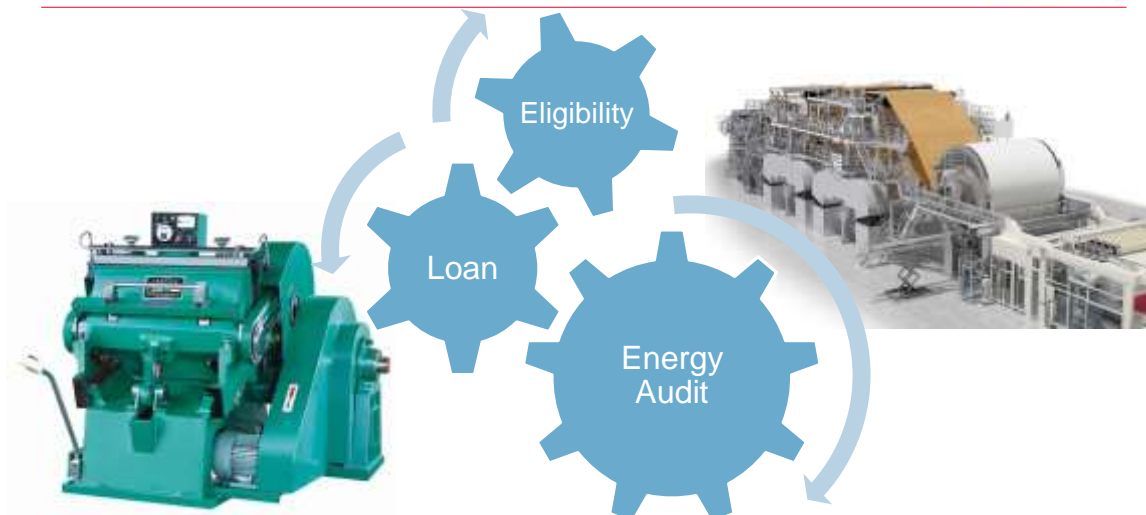
Solution for energy savings

25/10/2016 | P.1





## EuroEnergy – Savings for industry and services



Solution for energy savings

25/10/2016 | P.5

## List of current programmes



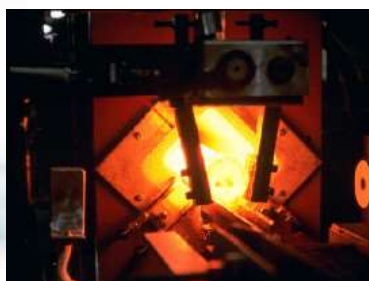
### COSME, MICROFINANCE



Support for beginning entrepreneurs.

50%/80% guarantee from EIF.

### EuroEnergy



Energy saving projects support.

80% guarantee from EIB with interest subsidies.

### Program JESSICA



Energy savings support for housing.

Interest subsidies from ERDF.



Solution for energy savings

25/10/2016 | P.4



## EuroEnergie – Energy savings for industry and services



investments to improve the energy performance of public lighting

energy Savings / Energy Efficiency in Buildings



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



Solution for energy savings

25/10/2016 | P.6

## EuroEnergie – Energy savings for industry and services



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



Solution for energy savings

25/10/2016 | P.7



## 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



Solution for energy savings

25/10/2016 | P.8

## 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

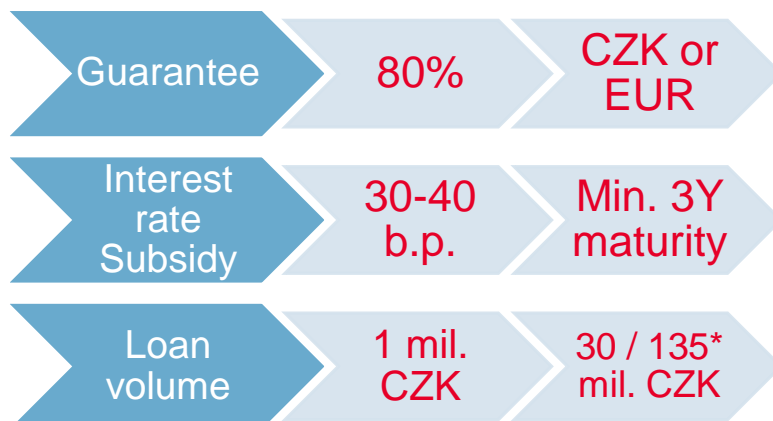


Solution for energy savings

25/10/2016 | P.10



## EuroEnergie – Guarantee with subsidy



\* For SME or energy savings projects in buildings



Solution for energy savings

25/10/2016 | P.9

## Thank you for your attention

### PETR GROSS

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Solution for energy savings

25/10/2016 | P.1



MINISTRY  
OF REGIONAL  
DEVELOPMENT CZ

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

MINISTRY OF REGIONAL DEVELOPMENT  
NATIONAL COORDINATION AUTHORITY

Jan Vaňkát



EUROPEAN UNION  
Cohesion Fund  
Operational Programme Technical Assistance



MINISTRY  
OF REGIONAL  
DEVELOPMENT CZ

## 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



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Cohesion Fund  
Operational Programme Technical Assistance



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## 1) Coordinating and advisory role of the National Coordination Authority



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Cohesion Fund  
Operational Programme Technical Assistance



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OF REGIONAL  
DEVELOPMENT CZ

## 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



EUROPEAN UNION  
Cohesion Fund  
Operational Programme Technical Assistance



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## 2) State-of-play of FIs



EUROPEAN UNION  
Cohesion Fund  
Operational Programme Technical Assistance



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## 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



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Cohesion Fund  
Operational Programme Technical Assistance



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OF REGIONAL  
DEVELOPMENT CZ

## Envisaged energy efficiency FIs in OP Environment and IROP

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



EUROPEAN UNION  
Cohesion Fund  
Operational Programme Technical Assistance



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### 3) Where could be FIs simplified?



EUROPEAN UNION  
Cohesion Fund  
Operational Programme Technical Assistance





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DEVELOPMENT CZ

## 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)



EUROPEAN UNION  
Cohesion Fund  
Operational Programme Technical Assistance



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OF REGIONAL  
DEVELOPMENT CZ

## 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



EUROPEAN UNION  
Cohesion Fund  
Operational Programme Technical Assistance



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## 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



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Cohesion Fund  
Operational Programme Technical Assistance



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## 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



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## 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



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## 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)



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## 4) Upcoming EC/EIB advisory events



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### 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



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Thank you for your attention.

[www.mmr.cz/en/](http://www.mmr.cz/en/)  
[www.dotaceeu.cz/en/](http://www.dotaceeu.cz/en/)



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## Financial instruments supporting energy efficiency of the business sector

Ing. Mgr. Pavel Laube

Department of Financial Instruments Support and Project Management

Ministry of Industry and Trade

Prague, 22 September 2016



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### OP PIK – Operational Programme Enterprise and Innovations for Competitiveness

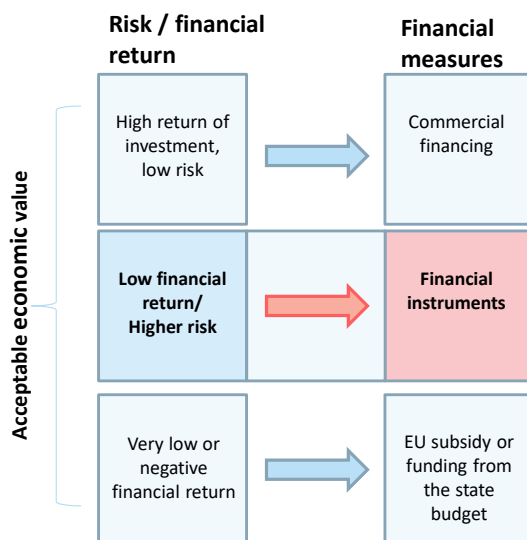
- MIT is a major supporter of Czech industry and innovation via European and national programs. Main source of funding are ESIF
- **OP PIK 2014-2020 - allocation of € 4.3 billion**
  - Strong accent on energy savings - contribution to the national Czech target of energy savings 50,67 PJ by 2020.
  - **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





## Proposed financial instruments based on ex ante assessment conclusions

Specific objective/PA	Support programme	FI 1st generation	FI 2nd generation	Proposed margin of FI allocation (millions of EUR)	MA's allocation for pilot FIs implementation (EUR mil.)	Allocation for OP EIC specific target (EUR mil.)
1.2 – Improving the intensity and efficiency of cooperation in research, development and innovation	Proof of Concept		Equity investment	21-42	12	377,7
2.1 – Enhancing competitiveness of start-ups and developing SMEs	Expansion	Soft loans and guarantees		322-436	327	609,4
	Venture capital		Equity investment	30-60	53	
3.2 – Improving the energy efficiency of the business sector	Energy savings	Soft loans		20-75	20	746,2
3.5 – Improving the efficiency of the systems for heat supply	Energy savings in SHS	Soft loans		11-25	11	142,9

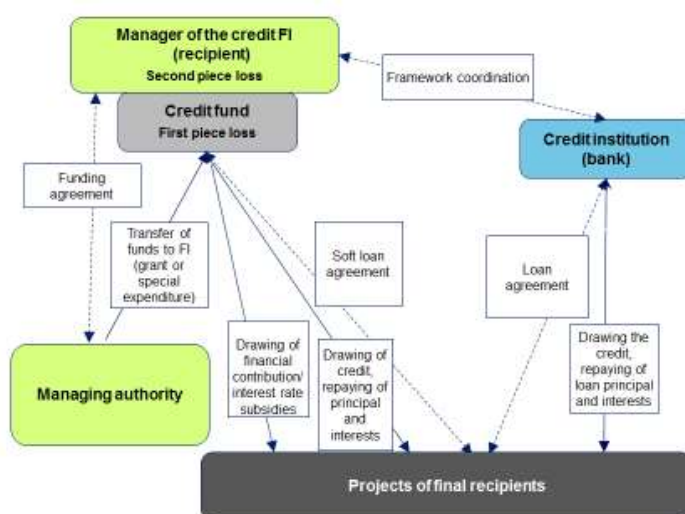
## Financial instruments in energy savings

- **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 ČMZRБ
- 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 CO<sub>2</sub> reduction (Kč/kg CO<sub>2</sub>)
  - 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 – ČMZRБ 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 analogical 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!





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## FINANCIAL INSTRUMENTS IN THE CZECH REPUBLIC AND ABROAD

(22 September 2016 - Prague)

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Jiří Karásek  
SEVEn, The Energy Efficiency Center



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### AGENDA

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- ➔ 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

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### 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 through the short term loans could finance the most effective EE measures (e.g. Effect 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

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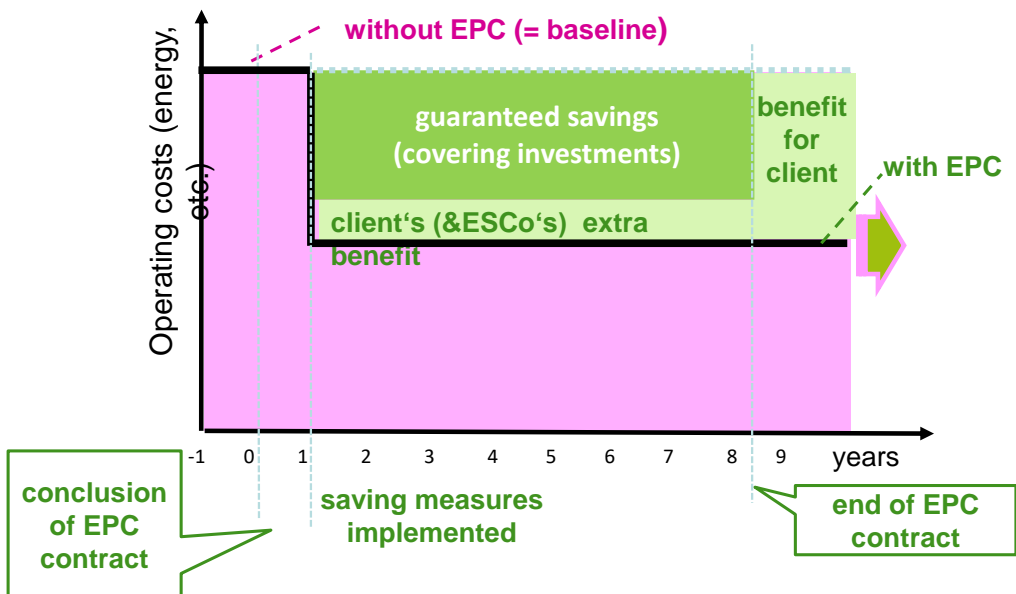
### Belarus

- ➔ 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)

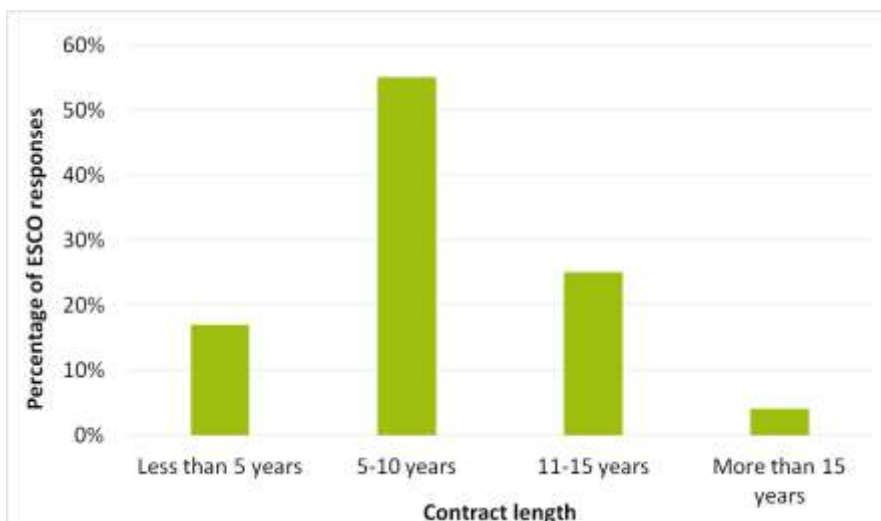




## EPC Basics

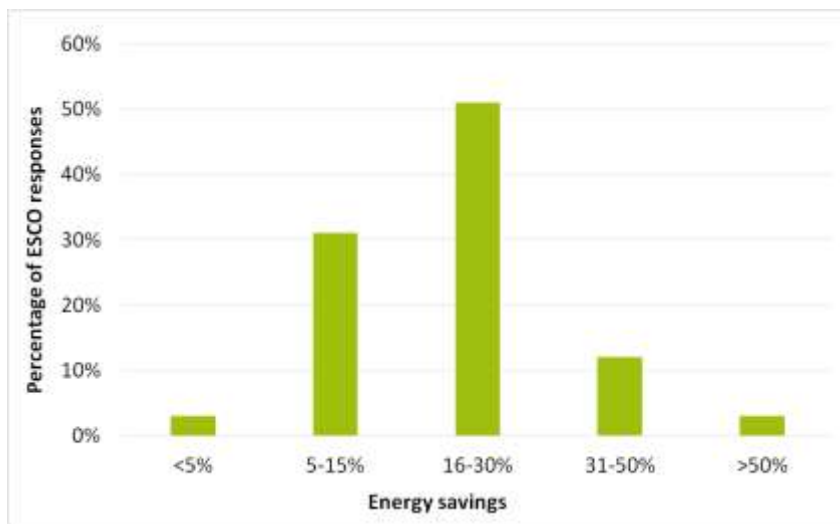


## Transparence EPC survey in Europe



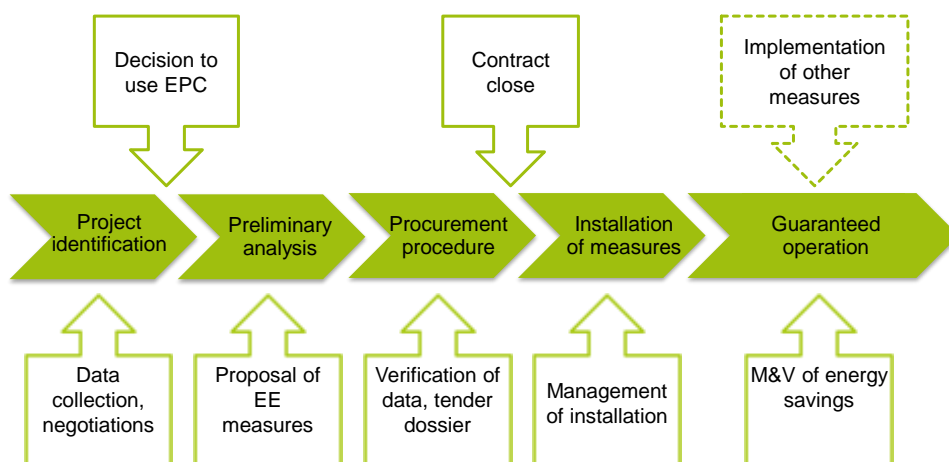


## Transparence EPC survey in Europe



[www.transparence.eu/eu/epc-databases](http://www.transparence.eu/eu/epc-databases)

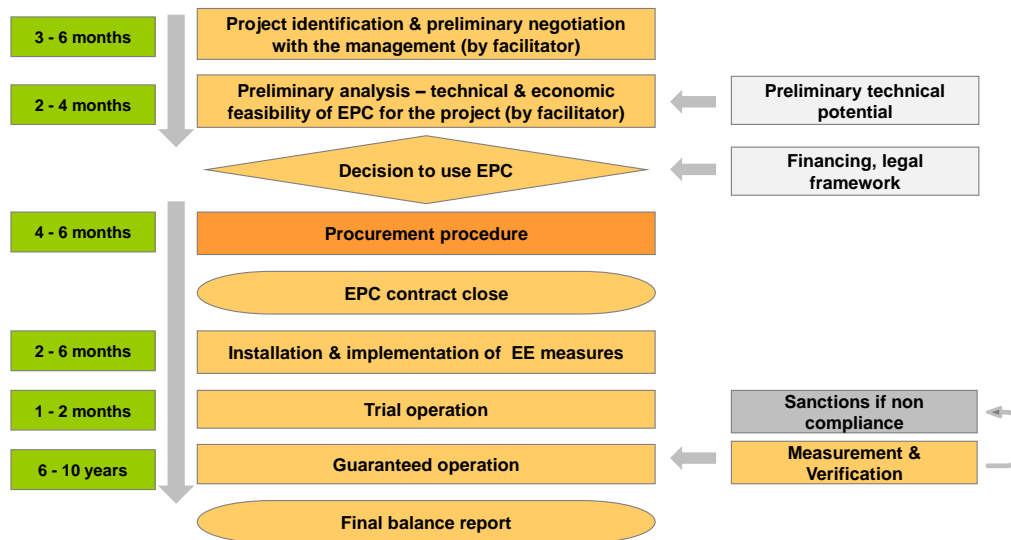
## EPC process Main stages of EPC process





## EPC process

### Timing of EPC process



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## 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/>



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## CHALLENGES FOR THE FUTURE

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### 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?

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**Thank you for your attention!**

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