CONCERTED ACTION
ENERGY EFFICIENCY
DIRECTIVE

Energy Performance Contracting in Slovenia

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CA EED Plenary Meeting

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Public Buildings Deep Renovation Programme

EUR 415 million

Planned investments (2016 -2023)
Cohesion Fund EUR 117,4 million (tendered 84%)
Floor area 1.8 million m^2

EUR 88 million

EPC investments (2016 - 2018)
Cohesion Fund EUR 35 million

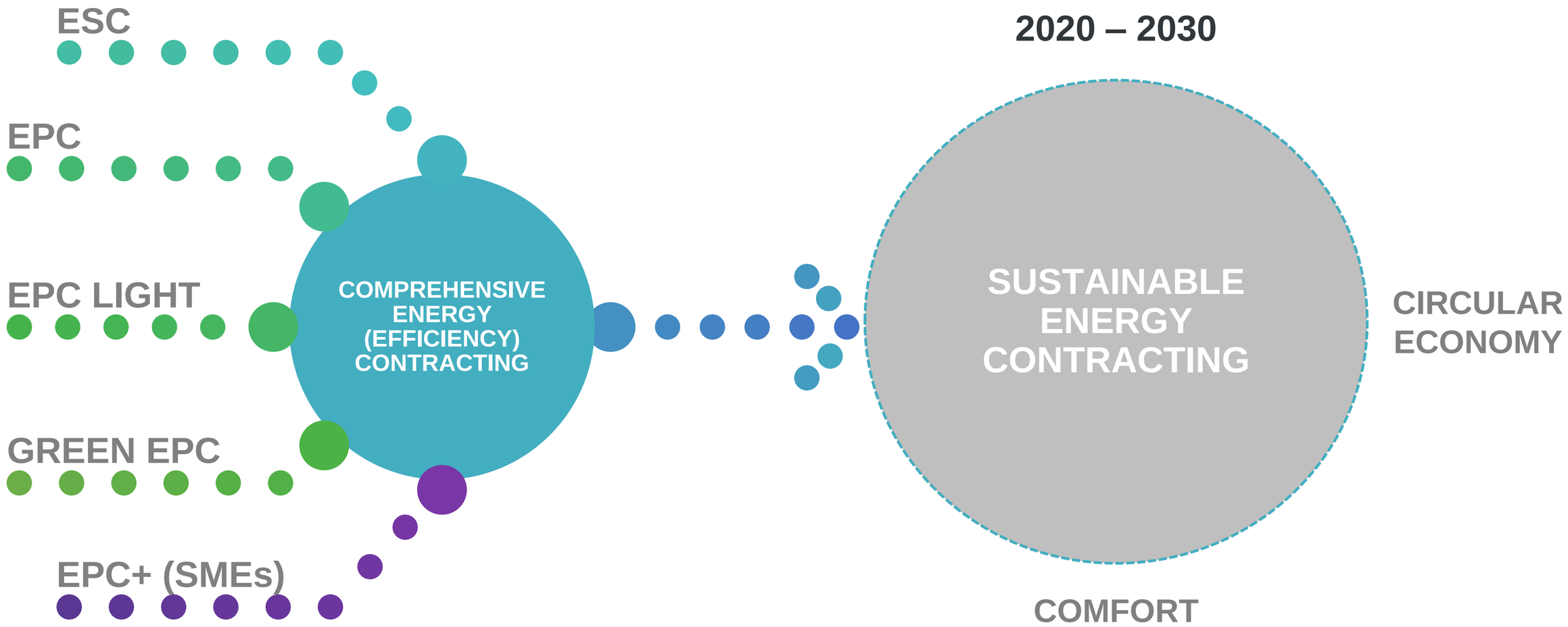
32

EPC projects (2016 - 2018)
Floor area 0.6 million m^2
Energy savings 86 kWh/m^2a; Renovation cost 158 EUR/m^2

EPC.SI Projects: Basic requirements

- ✓ The EPC provider takes over the performance **risks**
- ✓ Savings are **guaranteed** by the EPC provider and determined by **M&V**
- ✓ The EPC provider supports long-term use of **energy management**
- ✓ The EPC provider **finances** at least 50% of deep energy renovation

EPC.SI Critical Success Factors: Market development know-how transfer



EPC.SI Critical Success Factors: Policy & Legislation

- ✓ **EPC policy endorsed by the Ministry of Infrastructure (MoI), Ministry of Finance and Government Office for Development and European Cohesion Policy of the Republic of Slovenia**
  - NEEAPs & Long-Term Strategy for Mobilising Investments in the Energy Renovation of Buildings (EED), EPC Guidelines, Operational Programme for the Implementation of the EU Cohesion Policy 2014-2020
  - Of-balance sheet treatment of EPC implemented as service concession under Public Private Partnership Act, EUROSTAT statistical treatment check performed
  - Obligatory EPC test for public sector deep renovation investments
- ✓ **Leadership and governance**
  - Implementation led by MoI Project Office for the Energy Renovation of Buildings

EPC.SI Critical Success Factors: NEEAPs as programming tool

✓ **EPC directly related measures**

- H.1 Energy Performance Contracting
- G.9 Establishment of a guarantee scheme
- J.2 Financial incentives for the deep renovation of buildings in the public sector
- J.3 Introducing an energy management system in the public sector
- J.5 Public buildings energy renovation Projects Implementation Unit

✓ **EPC indirectly related measures**

- H.3 Information, awareness-raising and training schemes for targeted public
- H.4 Education and training
- J.6 Support scheme for the renovation of built cultural heritage and other special building groups
- J.7 Preparation of sustainability criteria for public buildings renovation

EPC.SI Critical Success Factors: EPC Facilitators

- ✓ **Local Energy Agencies (bottom-up EPC market development)**
- ✓ **European Local Energy Assistance (ELENA) – leverage factor of at least 20**

1. ENERGY RENOVATION OF LJUBLJANA (EOL), EUR 1.1 million,
   January 2013 – December 2016
2. ENERGY RENOVATION OF CITIES NOVO MESTO, CELJE, KRANJ (EOMO), EUR 1.8 million,
   January 2016 – December 2019
3. PREPARATION AND MOBILISATION OF FINANCING FOR SUSTAINABLE ENERGY INVESTMENTS IN PRIMORSKA REGION MUNICIPALITIES (PM4PM), EUR 2.3 million,
   October 2016 – September 2019,
   25 municipalities, 32 partners, 350 projects documents, projects pipeline EUR 54.0 million
4. GOVERNMENT DEEP ENERGY RENOVATION (GOVDER), EUR 1.9 million,
   January 2018 – December 2020

EPC.SI Critical Success Factors: Standardisation

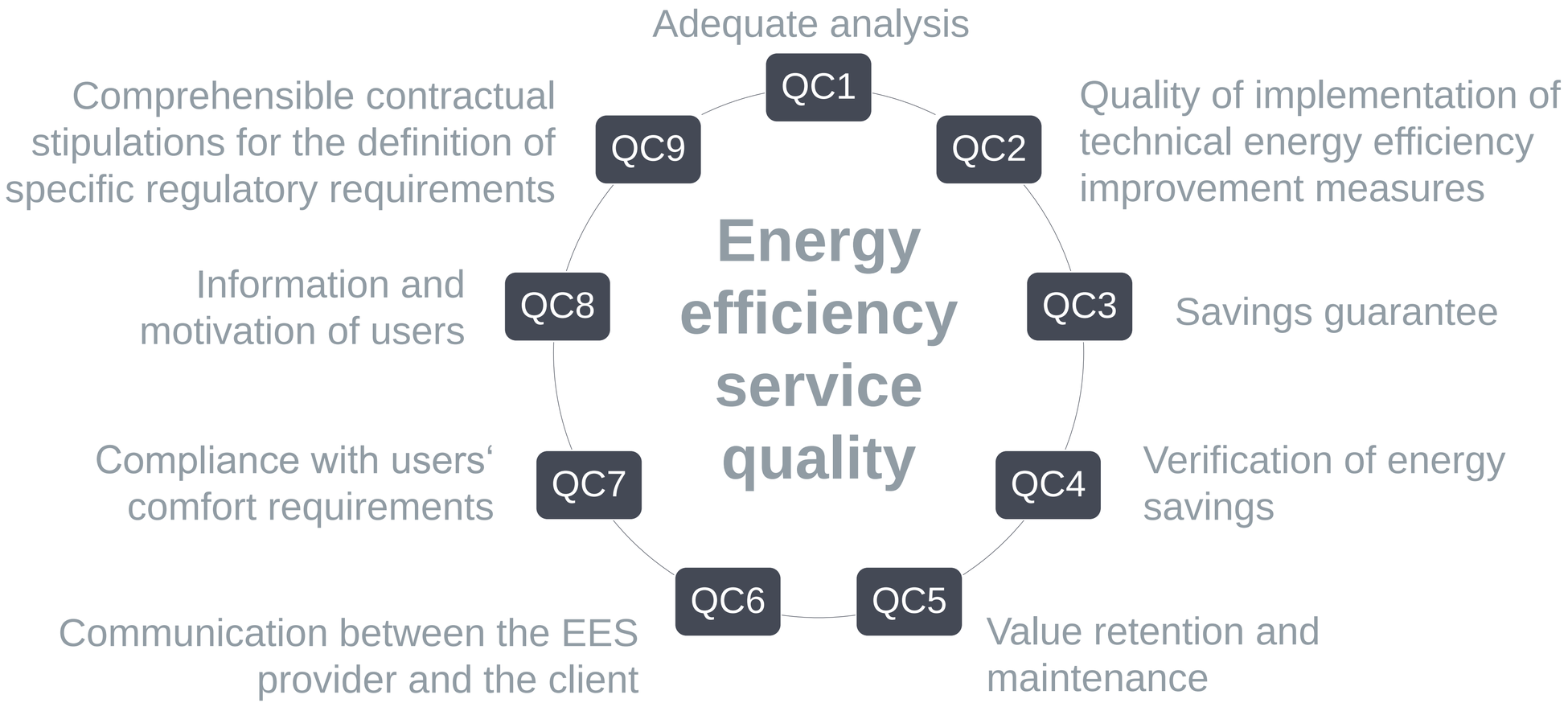
- ✓ Instructions and technical guidelines for energy renovation of public buildings
- ✓ Instructions for operation of intermediary bodies and beneficiaries implementing public buildings energy renovation programme
- ✓ Detailed guidelines for the public partners implementing public buildings energy renovation
- ✓ Call to public-private partnership promoters
- ✓ Decision on public-private partnership
- ✓ Concession act
- ✓ Call for tenders
- ✓ Model contract
- ✓ Model agreement
- ✓ Reference book of eligible costs of public buildings energy renovation
- ✓ Guidelines for energy renovation of built cultural heritage

http://www.energetika-portal.si/podrocja/energetika/energetska-prenova-javnih-stavb/projektna-pisarna/

EPC.SI Critical Success Factors: Financing

- ✓ **National financing instruments in place**
  - Cohesion grants to public bodies (blended)
  - Energy efficiency loans to public bodies or ESCOs (SID Bank)
  - (Equity and quasy equity, green bonds)
- ✓ **International financing instruments used**
  - Loans to ESCOs
  - ESCOs equity financing
  - Forfeiting
  - Bridge financing

EPC.SI Future Developments: Quality assurance scheme



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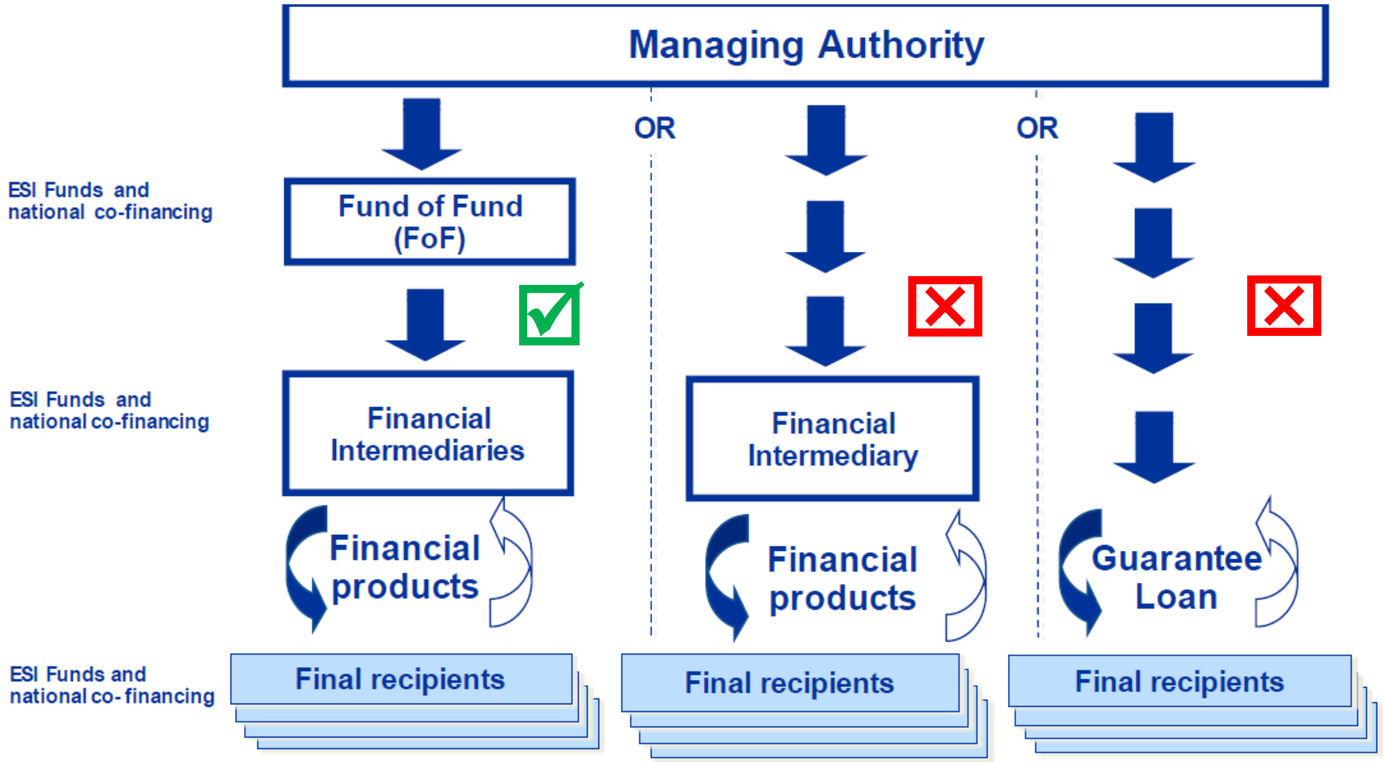
EPC.SI Future Developments: Financing instruments



NEEAP – National Energy Efficiency Action Plan

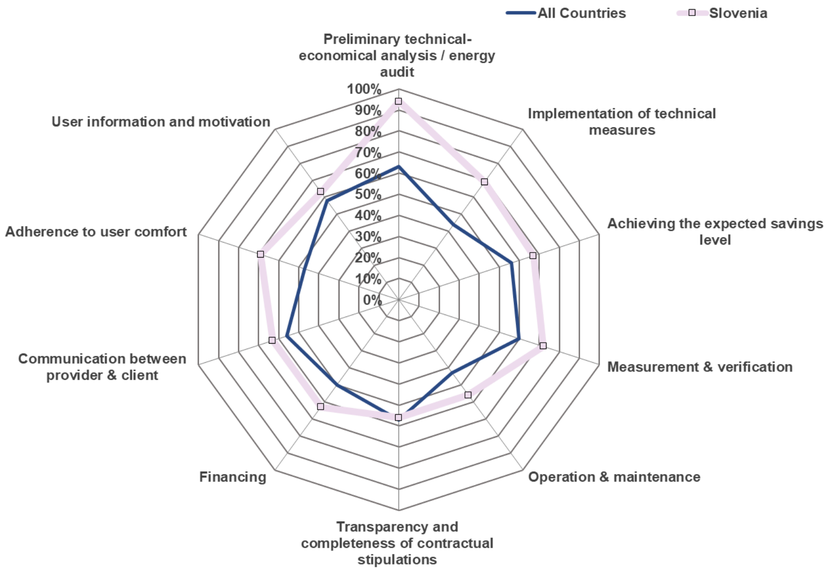
LTRS – Long Term Renovation Strategy

OP ECP - Operational Programme for the Implementation of the EU Cohesion Policy

OP ECP ← LTRS ← NEEAP

SI

EPC.SI Future Developments:
EE Projects Facilitators Scheme/Platform



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Self Declaration for EPC Facilitators*

Hereby I declare to meet the EPC Facilitators criteria, drawn up by the EU GuarantEE partners.

To be specific, I will meet the following requirements:

- ❑ I support and will adhere to the GuarantEE EPC facilitators criteria (**signed PDF**)
- ❑ I support and will adhere to the values and principles of the European EPC Code of Conduct (**signed PDF**)
  http://www.transparense.eu/eu/epc-code-of-conduct
- ❑ I will read the EESI2020 EPC Facilitators Guideline and operate according to these principles
  http://eesi2020.eu/wp-content/uploads/2014/11/EESI2020_EPC_Facilitators_Guideline.pdf
- ❑ I agree with the publication of my EPC related track record, including:
  - ❑ Contact information
  - ❑ Professional education and expertise
  - ❑ Relevant EPC Facilitator trainings completed
  - ❑ Realised EPC projects, with references and links
- ❑ I reaffirm to constantly work on my development and training of EPC Facilitator skills, e.g. following guarantEE trainings or webinars.

* Disclaimer: Only the signatories themselves are responsible for the correctness of the data provided. There will be no formal accreditation or control.

Name:
Place and date:
Signature:

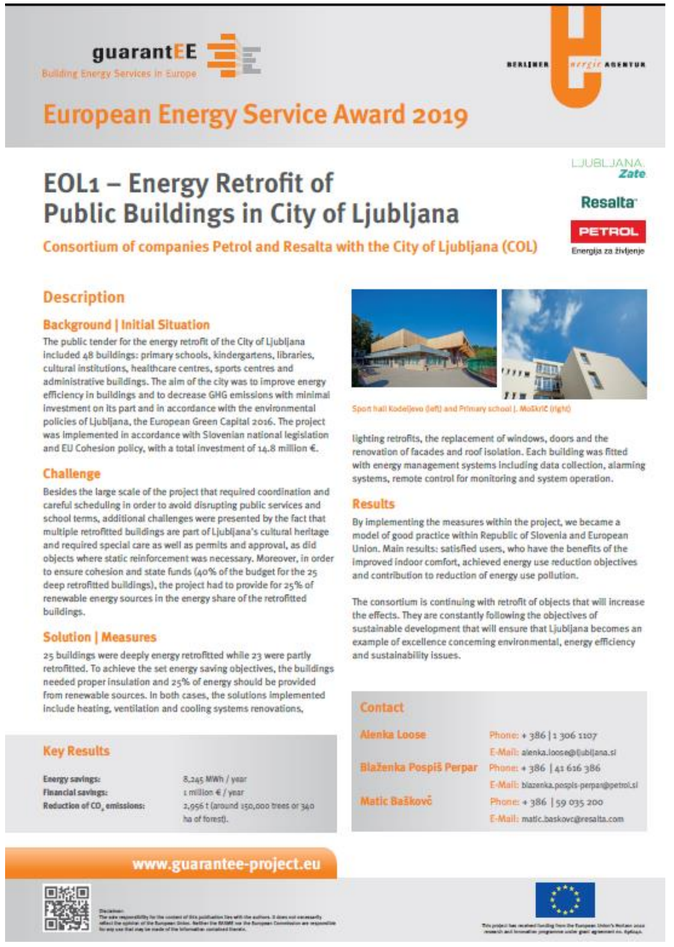
The most important determinants of quality in EPC projects

www.guarantEE-project.eu

European Energy Service Award (EESA) 2019: Best European Energy Service Project

Energy retrofit of public buildings in the City of Ljubljana:

The public tender for the energy retrofit included 48 buildings, among them primary schools, sports centres and administrative buildings. 25 buildings were fully energy retrofitted, and 23 partly. Through proper insulation, energy efficiency measures, the introduction of energy management systems and remote control for monitoring, the City of Ljubljana achieved financial savings of €1 million per year and a total reduction in CO2 emissions of around 400,000 tons.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European Energy Service Award 2019

EOL1 – Energy Retrofit of Public Buildings in City of Ljubljana

Consortium of companies Petrol and Resalta with the City of Ljubljana (COL)

Description

Background | Initial Situation

The public tender for the energy retrofit of the City of Ljubljana included 48 buildings: primary schools, kindergartens, libraries, cultural institutions, healthcare centres, sports centres and administrative buildings. The aim of the city was to improve energy efficiency in buildings and to decrease GHG emissions with minimal investment on its part and in accordance with the environmental policies of Ljubljana, the European Green Capital 2016. The project was implemented in accordance with Slovenian national legislation and EU Cohesion policy, with a total investment of 14.8 million €.

Challenge

Besides the large scale of the project that required coordination and careful scheduling in order to avoid disrupting public services and school terms, additional challenges were presented by the fact that multiple retrofitted buildings are part of Ljubljana's cultural heritage and required special care as well as permits and approval, as did objects where static reinforcement was necessary. Moreover, in order to ensure cohesion and state funds (40% of the budget for the 25 deep retrofitted buildings), the project had to provide for 25% of renewable energy sources in the energy share of the retrofitted buildings.

Solution | Measures

25 buildings were deeply energy retrofitted while 23 were partly retrofitted. To achieve the set energy saving objectives, the buildings needed proper insulation and 25% of energy should be provided from renewable sources. In both cases, the solutions implemented include heating, ventilation and cooling systems renovations,

Sport hall Kodeljevo (left) and Primary school J. Moškrič (right)

lighting retrofits, the replacement of windows, doors and the renovation of facades and roof isolation. Each building was fitted with energy management systems including data collection, alarming systems, remote control for monitoring and system operation.

Results

By implementing the measures within the project, we became a model of good practice within Republic of Slovenia and European Union. Main results: satisfied users, who have the benefits of the improved indoor comfort, achieved energy use reduction objectives and contribution to reduction of energy use pollution.

The consortium is continuing with retrofit of objects that will increase the effects. They are constantly following the objectives of sustainable development that will ensure that Ljubljana becomes an example of excellence concerning environmental, energy efficiency and sustainability issues.

Key Results

Energy savings:	8,245 MWh / year
Financial savings:	1 million € / year
Reduction of CO_2 emissions:	2,956 t (around 150,000 trees or 340 ha of forest).

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Thank you!

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