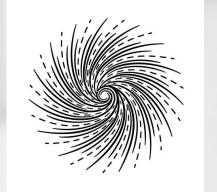
Learning Energy Efficiency Networks (LEEN) in the Balkan Region – Project approach

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Project approach: General information

- In June 2014, TESLIANUM and LEEN signed a strategic partnership agreement.
- General target:
 Knowledge and technology transfer in the field of energy efficiency in industry from Germany (Baden-Württemberg) to the Western Balkans.
- LEEN is a spinoff of Fraunhofer society, running energy efficiency projects in Germany, Austria, Belgium and in several Asian countries.
- TESLIANUM is the Energy Innovation Center based in Belgrade, Serbia with a strong communication and project network in the energy efficiency domain with SMEs, CSOs, Chambers of commerce and local municipalities in the Balkan region



Western Balkans: Market Opportunities and Options

- There is an excellent legal and financing framework (e.g. KfW, EBRD) and a huge technical saving potential for energy efficiency in Western Balkans.
- However, there is a lack of know-how to develop concrete efficiency investments.
- The concept of learning energy efficiency networks (LEEN) wants to bridge this gap:
 - LEEN was developed in a nation wide project in Germany to foster energy efficiency investments in companies.
 - And the concept works: 366 participating companies increased their efficiency significantly.
 - All investments implemented were highly profitable (IRR: 31%)

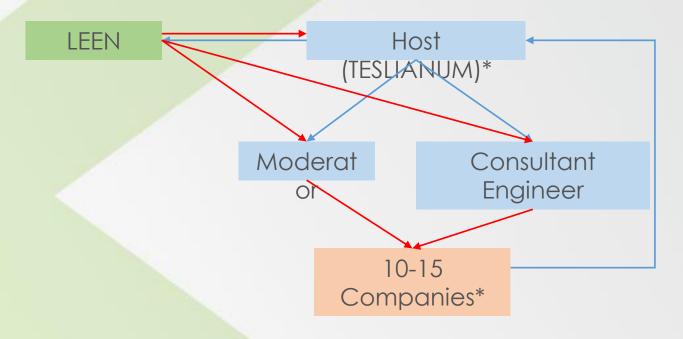


Proven track record of Energy Efficiency Networks

Overview	
Evaluated reports	366
Total number of measures	7,030
thereof quantitatively evaluated measures	6,030
thereof profitable measures (where IRR is greater than 12%)	3,580
Ø IRR of all profitable measures	31%
Ø static payback period of all profitable measures	3.2
Ø investment per measure [EUR]	55,700
Ø values per company/site (all profitable measures realized; IRR>12%)	
Ø energy savings [MWh/year]	2,670
ØCO ₂ emission reduction [t/year]	940
Ø number of quantitatively evaluated measures	19
thereof classified as profitable	10
Ø total additional investment [EUR]	580,000
Ø reduction of energy costs [EUR/year]	180,000



Organizational Structure of a Network



Money flow

* Optional funding (KfW, World Bank, Horizon 2020, IPA, EBRD, GIZ, Western Balkans Investment Framework, International Finance Corporation)



Network Process

Timeframe 3 to 4 years

PHASE 0

(3 to 9 months)

Acquisition Meetings: LEEN-Concept

- organization
- process
- costs
- profit

Letter of Intent / Contract

Official start of network

PHASE 1

(5 to 10 months)

Identification of profitable energy savings:

- data collection sheet
- site inspection
- energy review report

Target agreement

- energy reduction
- CO₂ reduction

PHASE 2

(2 to 4 years)

continuous network meetings (3 to 4 meetings per year) content:

- site inspection
- lecture on an efficiency topic
- presentation of realized measures
- general exchange of experiences

Completion:

- communication on results
- decision, if network will be continued

Monitoring of results

Communication on network activities



Companies in a Network get

- A complete assessment of the saving potentials in crosscutting technologies and several process-technologies
- An economic evaluation of the saving potentials (IRR, Payback Period and Net Present Value)
- Exchange of experiences (network acts as a know-how-pool)
- Up to date information on new technologies (presented by engineering experts)
- Evaluation of realized measures by a yearly monitoring
- A four year employee training
- LEEN components are compliant to ISO 50001 and 16247 standard



Project approach

Target:

Start of a cross-border pilot network according to the LEEN standard in four West Balkan countries: Serbia, Montenegro, Macedonia and Kosovo

- a) Feasibility study: Evaluation of the qualification of local engineers, energy prices, day rates of engineers and energy efficiency level in companies, existing funding schemes for efficiency investments – outcome: business model for the implementation of networks
- b) Provision of economic and technical calculation tools that are adapted to the framework conditions in the respective countries (e.g. Serbo-Croatian language)
- c) Trainings of consultant engineers and moderators on network specifics and the use of economic and technical calculation tools

Learning Energy Efficiency Networks

Q&A

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