



Cofinanziato dal programma "Energia intelligente-Europa" dell'Unione europea



Silvio De Nigris

Piedmont Region
Sustainable Energy Development Sector

ENERGY EFFICIENCY FINANCE MARKET PLACE

January 19th, 2017



Cofinanziato dal programma "Energia intelligente-Europa" dell'Unione europea

The project

Promote energy efficiency during the refurbishment of public buildings and street lights with Energy Performance Contracts and Third Party Investments



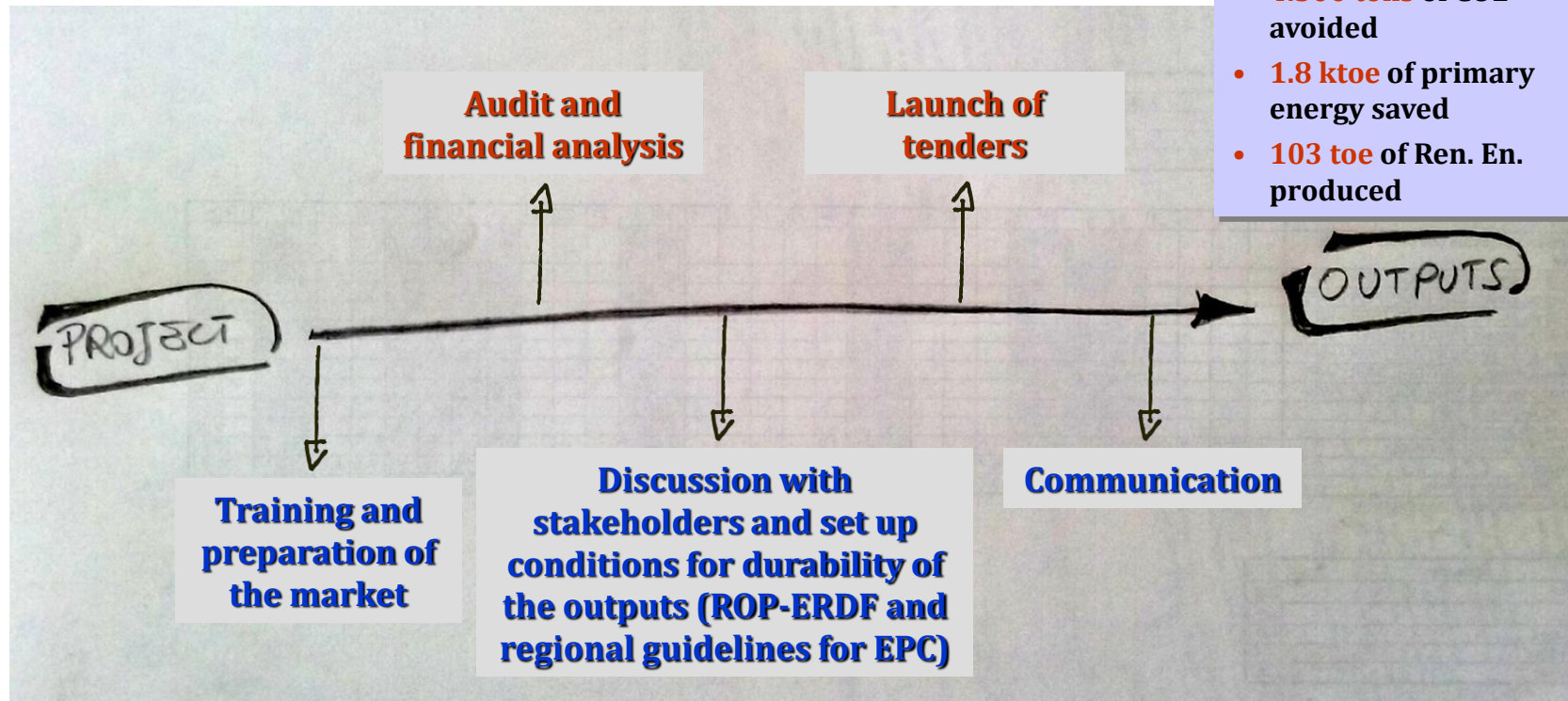
CITTA' DI TORINO



Co-funded by the Intelligent Energy Europe
Programme of the European Union

The project: outputs and WPs

Tasks for the Investments



- **9.5 M€** of investments in energy efficiency
- **Leverage factor: 19**
- **4.300 tons** of CO2 avoided
- **1.8 ktoe** of primary energy saved
- **103 toe** of Ren. En. produced

Tasks for the market

Role of the partner inside the project

- 1 Regional Institution (main tasks: provide durability of the outputs) – Piedmont Region
- 1 Regional institution (main tasks: act as tender contracting authority and coordination of Municipalities) – the Metropolitan City of Torino
- 1 technical partner (main tasks: elaboration of energy audits and financial assessment) – Environment Park
- 1 large City (main tasks: test and replication in the future) – The City of Torino

Public Buildings

- *One large investment for the City of Torino*
- *Bundling Investments for small and medium municipalities*

.....*Main achievements*.....

Large investment for heating boilers in the City of Torino - *Revamping*

WHAT: Change and management of heating systems in 118 public buildings

HOW: EPC with 5 years of duration

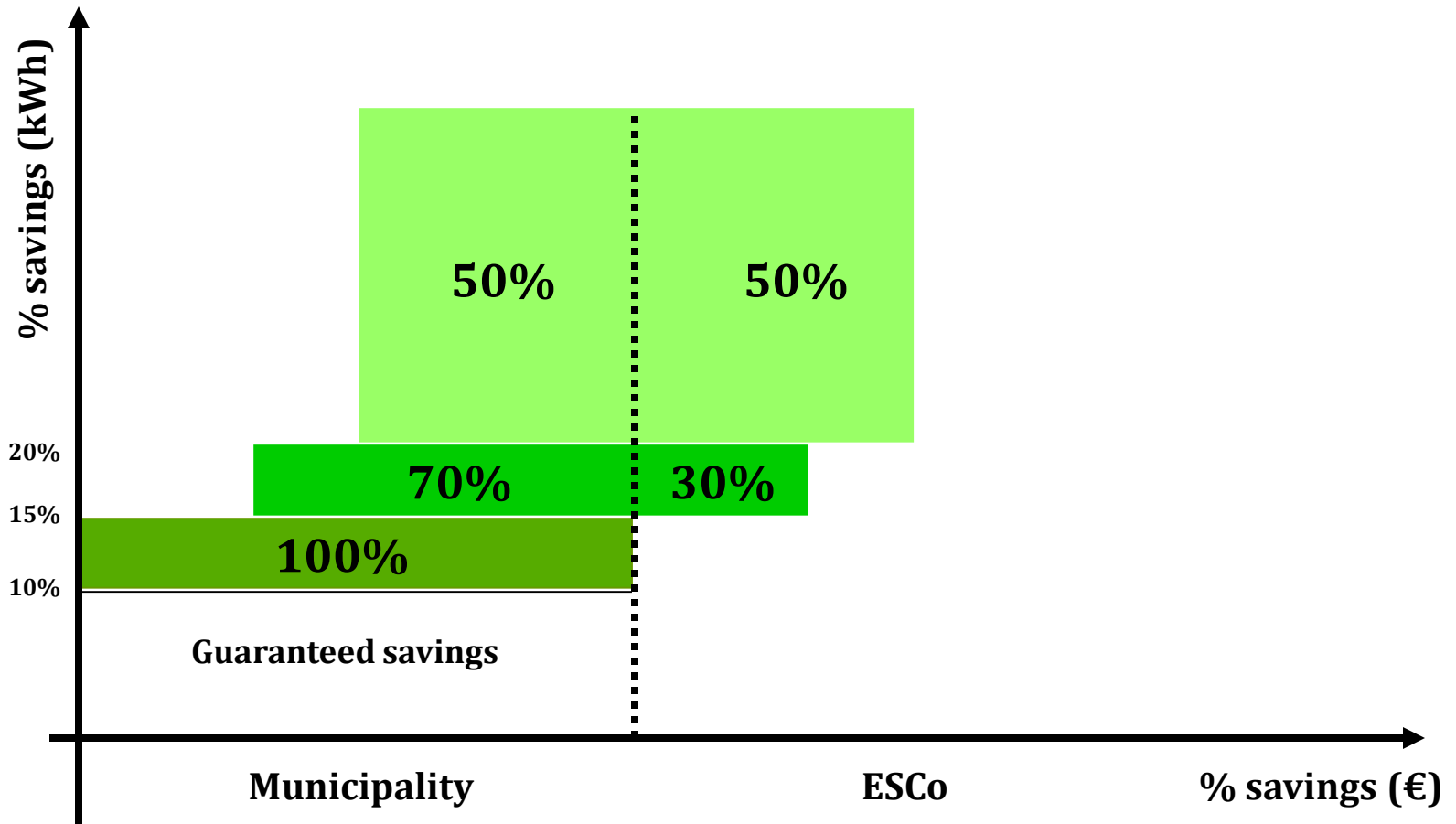
WHO: The City of Torino and the local Utility IREN

Expected savings: 30%

Guaranteed savings: 10% with shared savings in case of over-performance

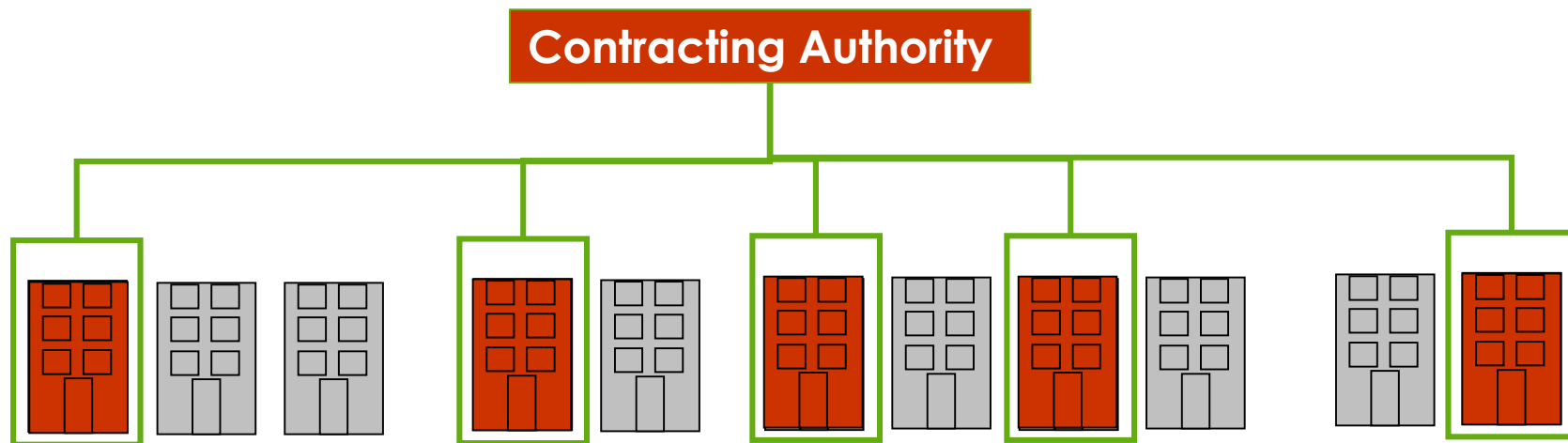
<i>Investments:</i>	11	M€
	1.7	M€ (grant of the City of Torino - 15%)
	2	M€ (National incentives - 18%)
	7.3	M€ (fees during 5 years - 67%)

Shared saving in case of overperformance



The model of the bundling contract: technical/administrative issues

- **Few** buildings belonging to a range of Municipalities
- **Selection** of buildings on the basis of their attractiveness for ESCOs
- A binding agreement was signed by beneficiaries Cities and Contracting Body



Municipality 1



Municipality 2



Municipality 3

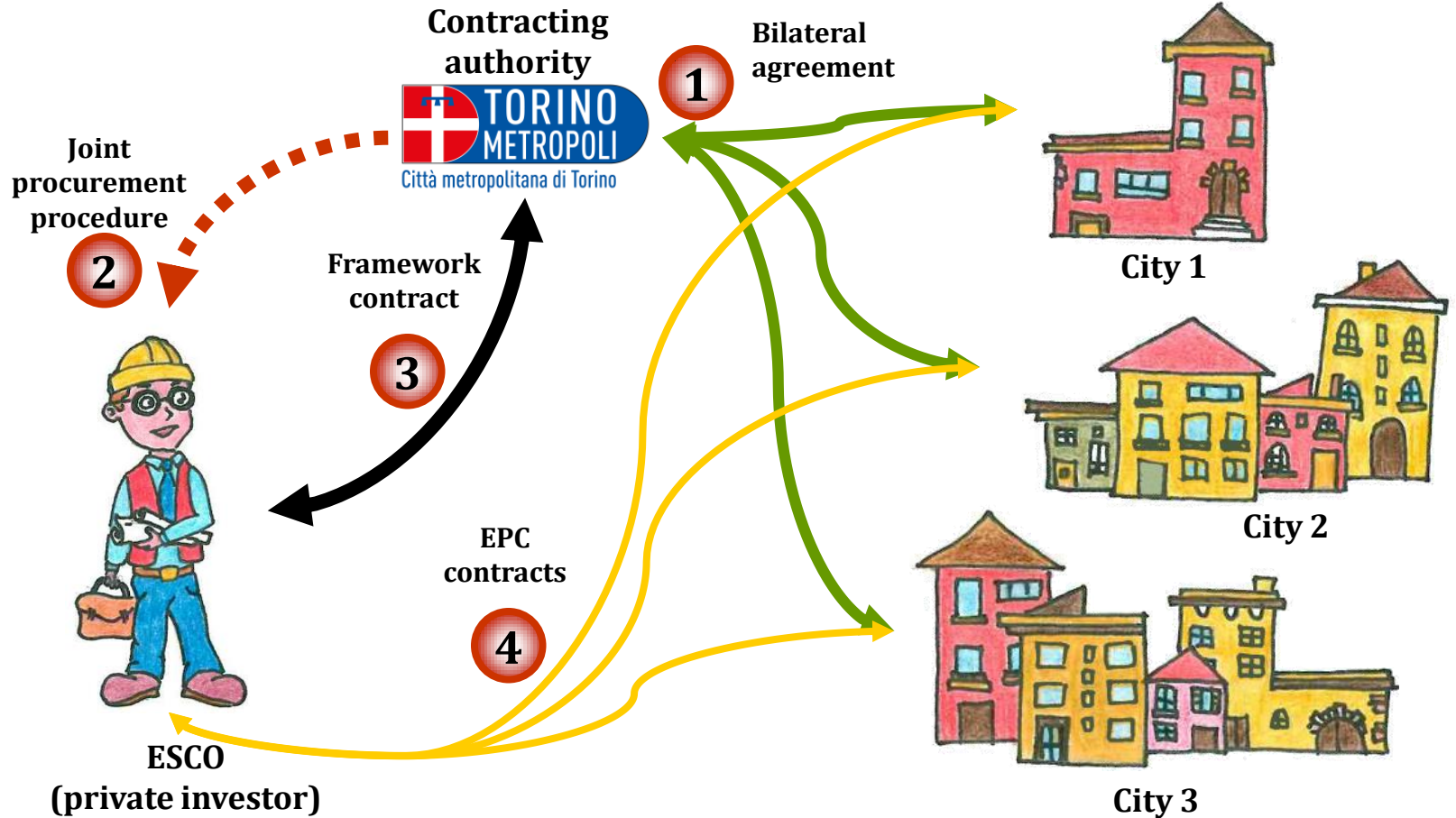


Municipality 4

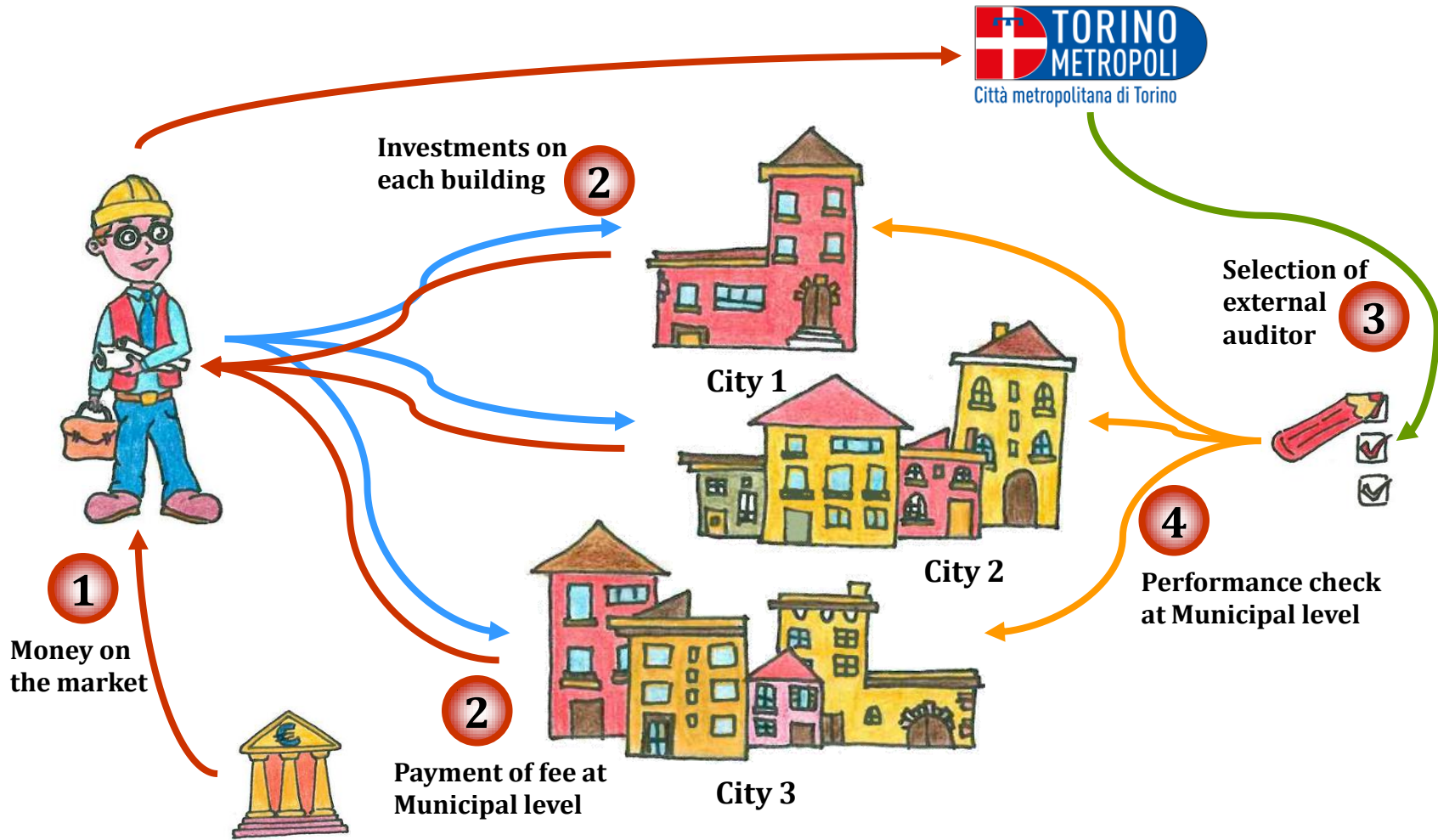


Cofinanziato dal programma "Energia intelligente-Europa" dell'Unione europea

The model: administrative scheme



The model: financial scheme



.....*Main achievements*.....

Deep renovation of public buildings

WHAT: energy renovation of 18 public buildings with fuel supply and energy management

HOW: EPC with 13 years of duration (1 year for investments + 12 years for management)

WHO: 5 Municipalities, the Metropolitan City of Torino and Bosch Energy and Solutions Italy

Guaranteed savings: 61% with shared savings in case of over-performance (70-30)

Investments: 3 M€



**Framework Contract signed
on the 22° of November!!**

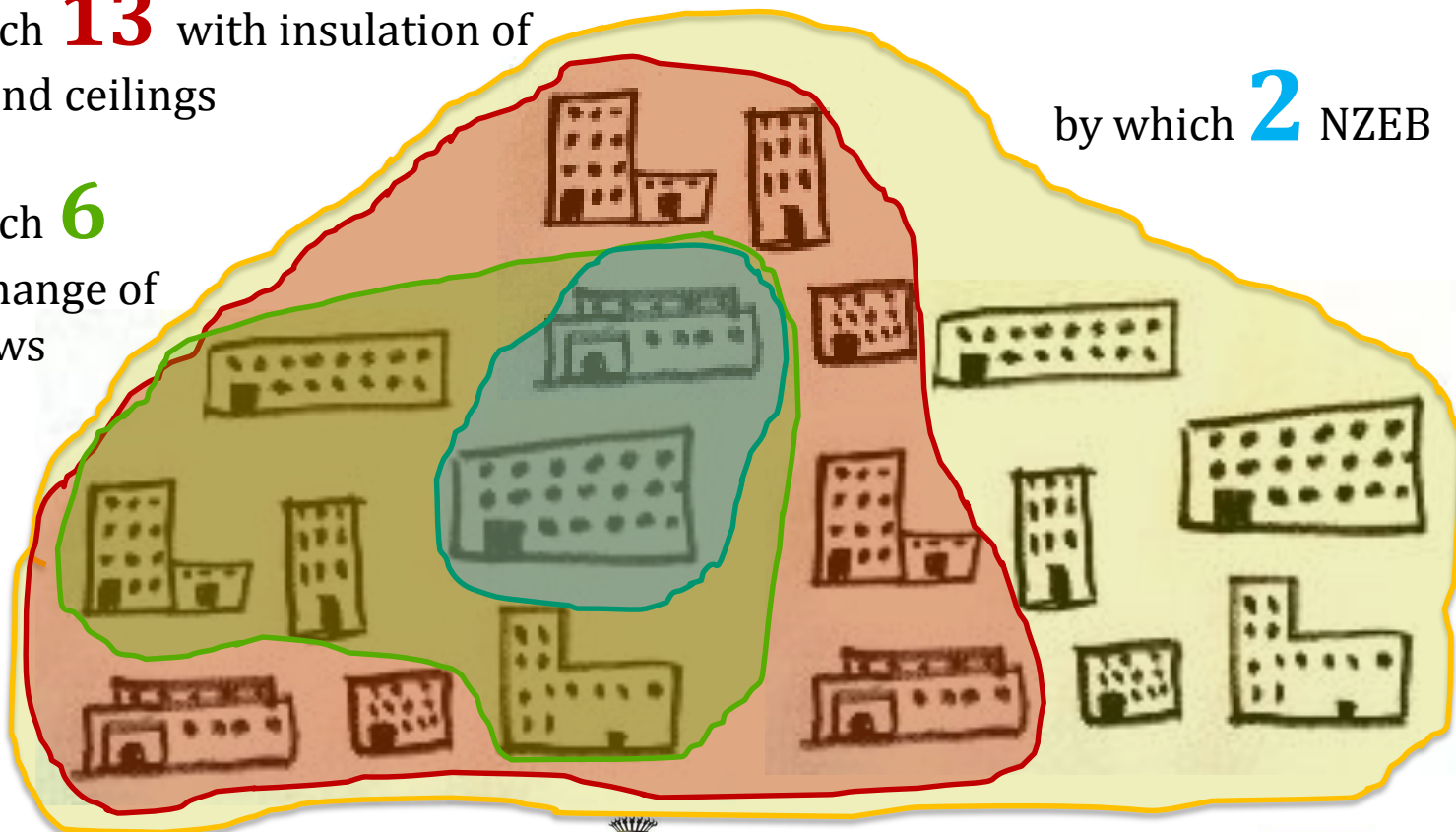
Planned investments for deep renovation

18 buildings with replaced space heating and energy management systems

by which **13** with insulation of walls and ceilings

by which **6** with change of windows

by which **2** NZEB



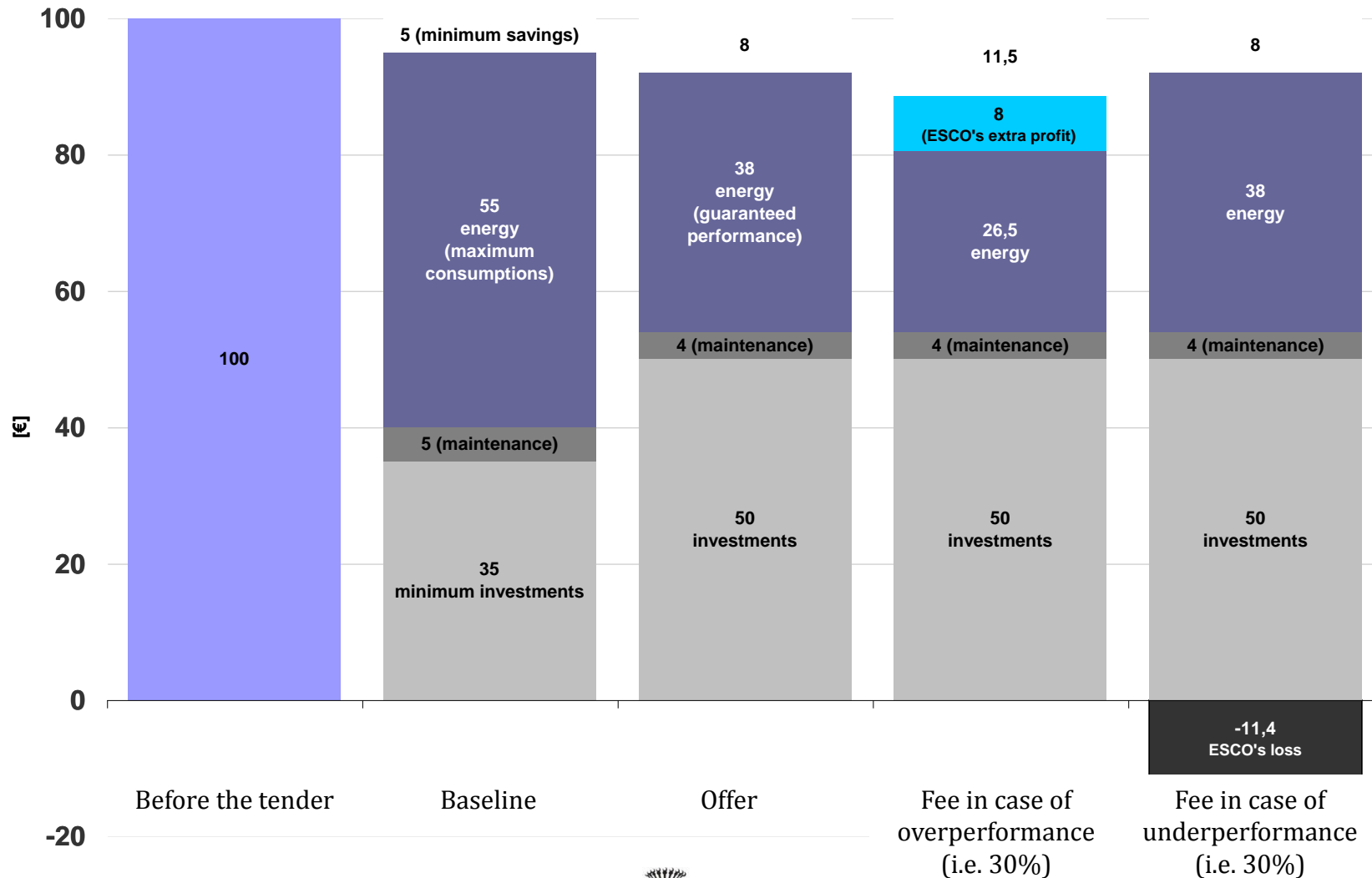
One lesson learnt!



9 MONTHS!!



Fee (an example)



Main evaluation criteria

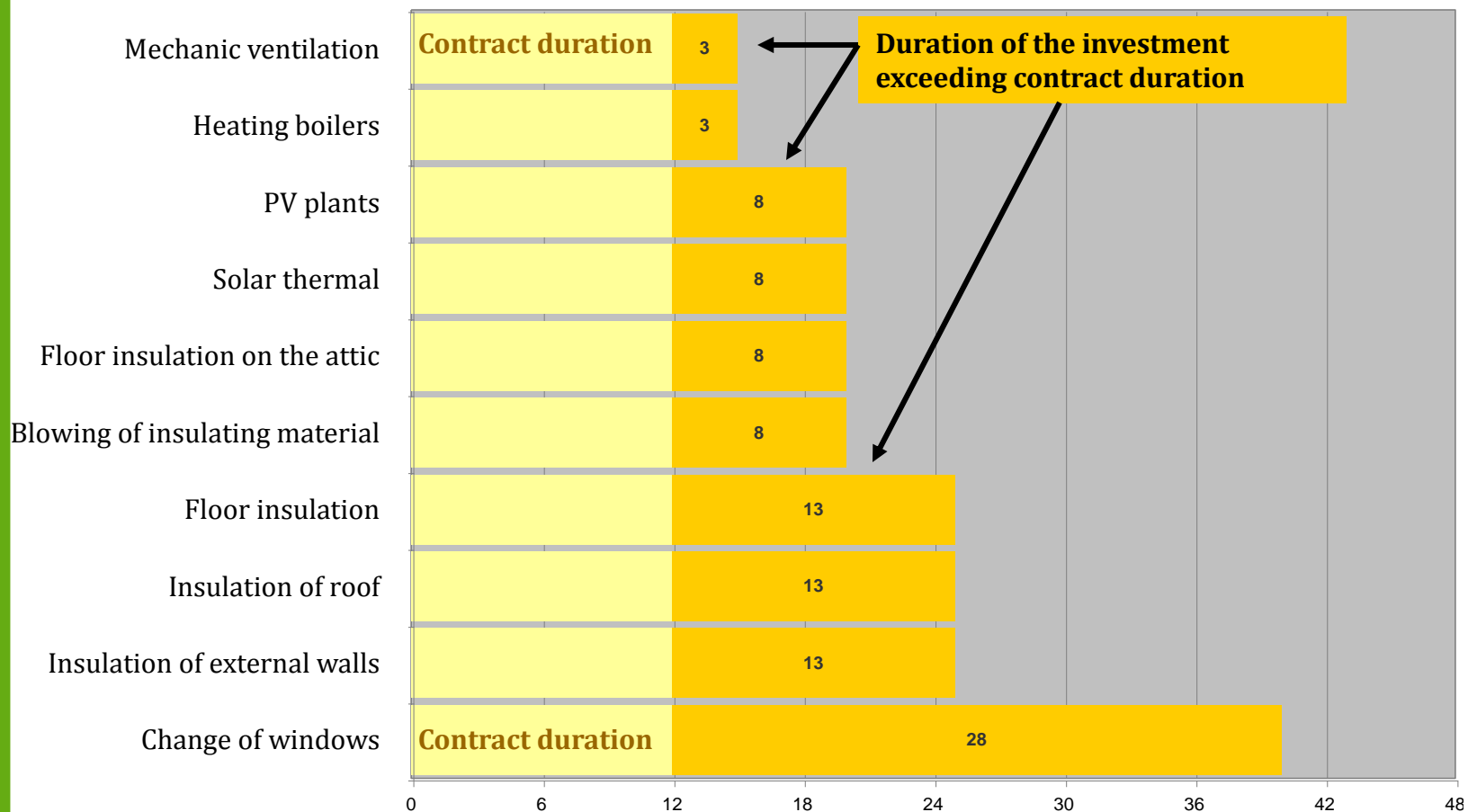
60 for technical criteria and 40 for economic criteria

Criteria	Maximum score	
Energy savings	22	Technical
Duration of investments	20	Technical
ESCO Certification	2	Technical
Quality of the maintenance service	2	Technical
CO2 emission saved from RES production	8	Technical
Coherence and completeness of the offer	6	Technical
Amount of investments	20	Economic
Economic savings for municipalities	20	Economic

The general approach in scoring the bids was based on the calculation of a weighted average

Main evaluation criteria

Standard duration of Investments



Public Light

- *Bundling Investments for small and medium municipalities*

Call for tender... Just launched!

WHEN: bids to be submitted by April the 5th

WHAT: energy renovation of 3000 street light points

HOW: EPC with 13 years of duration (1 year for investments + 12 years for management)

WHO: 6 Municipalities, the Metropolitan City of Torino and ESCO to be selected

Minimum Guaranteed savings: variable from 22% to 44% with shared savings in case of over-performance

Minimum Investments: 1.4 M€

Minimum economic savings: variable from 5% to 16%

Main evaluation criteria

50 for technical criteria and 50 for economic criteria

Number of light points renovated (over minimum threshold)

Duration of the luminous flux at 80% of standard values

Energy performance of the light points

Energy saving

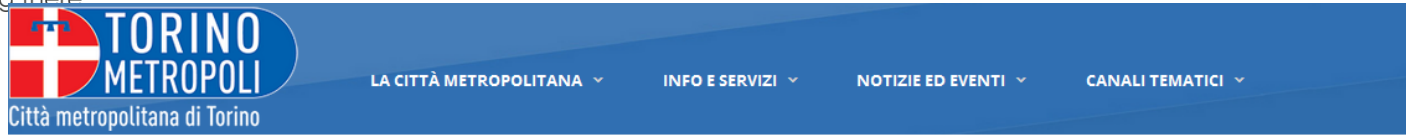
Project indicators

KPI	Planned	Achieved*	Forecast
Investments	9.5 M€	14 M€ 14 M€	16 M€ 16 M€
CO2 emissions avoided	4.300 tons	1.780 tons 4.109 tons	2.200 tons 4.530 tons
Primary energy saved	1.800 toe	745 toe 1.735 toe	1.000 toe 1.990 toe
Renewable energy produced	103 toe	33 toe 33 toe	33 toe 33 toe

**still to be validated by EASME*

Revamping calculated at 10% of savings
Revamping calculated at 30% of savings

The website



- AUTORIZZAZIONE
- OSSERVATORIO ENERGIA >
- PROGETTI SULL'ENERGIA SOSTENIBILE >
- DISTRIBUZIONE DEL GAS NATURALE >
- INQUINAMENTO LUMINOSO >
- EVENTI >

- HOME AMBIENTE >
- AGENDA21 >
- AUTORIZZAZIONE INTEGRATA AMBIENTALE (AIA) >
- AUTORIZZAZIONE UNICA AMBIENTALE (AUA) >
- CAMPI ELETTROMAGNETICI >
- DIFESA DEL SUOLO E ATTIVITÀ ESTRATTIVA >
- EDUCAZIONE E COMUNICAZIONE >
- EMISSIONI IN ATMOSFERA >
- FAUNA, FLORA, PARCHI E AREE PROTETTE >
- INFORMAZIONI AMBIENTALI >
- MOBILITÀ SOSTENIBILE >
- MODULISTICA ON LINE >
- OLI MINERALI >

The project **2020 TOGETHER**, activated thanks to European funding amounting to € 407,550, under the Programme **Intelligent Energy for Europe** / Mobilizing measures to improve **energy efficiency** of buildings for a minimum amount of approximately € 9 million, involves **small and private investors**.

The **Metropolitan City of Turin** is the project **Park**.

The main actions are:

- ✓ **energy audits** of buildings in order to identify energy saving opportunities;
- ✓ involvement of **small and medium-sized** contractors;
- ✓ research and promotion of **new forms of financing** finding new opportunities for financial support;
- ✓ **coordination** of Municipalities and group terms and conditions;
- ✓ launch of **one or more tenders** for the implementation of the project.



Investments mobilized by the project



Energy audits

Project documentation

Short presentation of the project (pdf [1,2 M](#))



Investments mobilized by the project



Energy audits



Project documentation

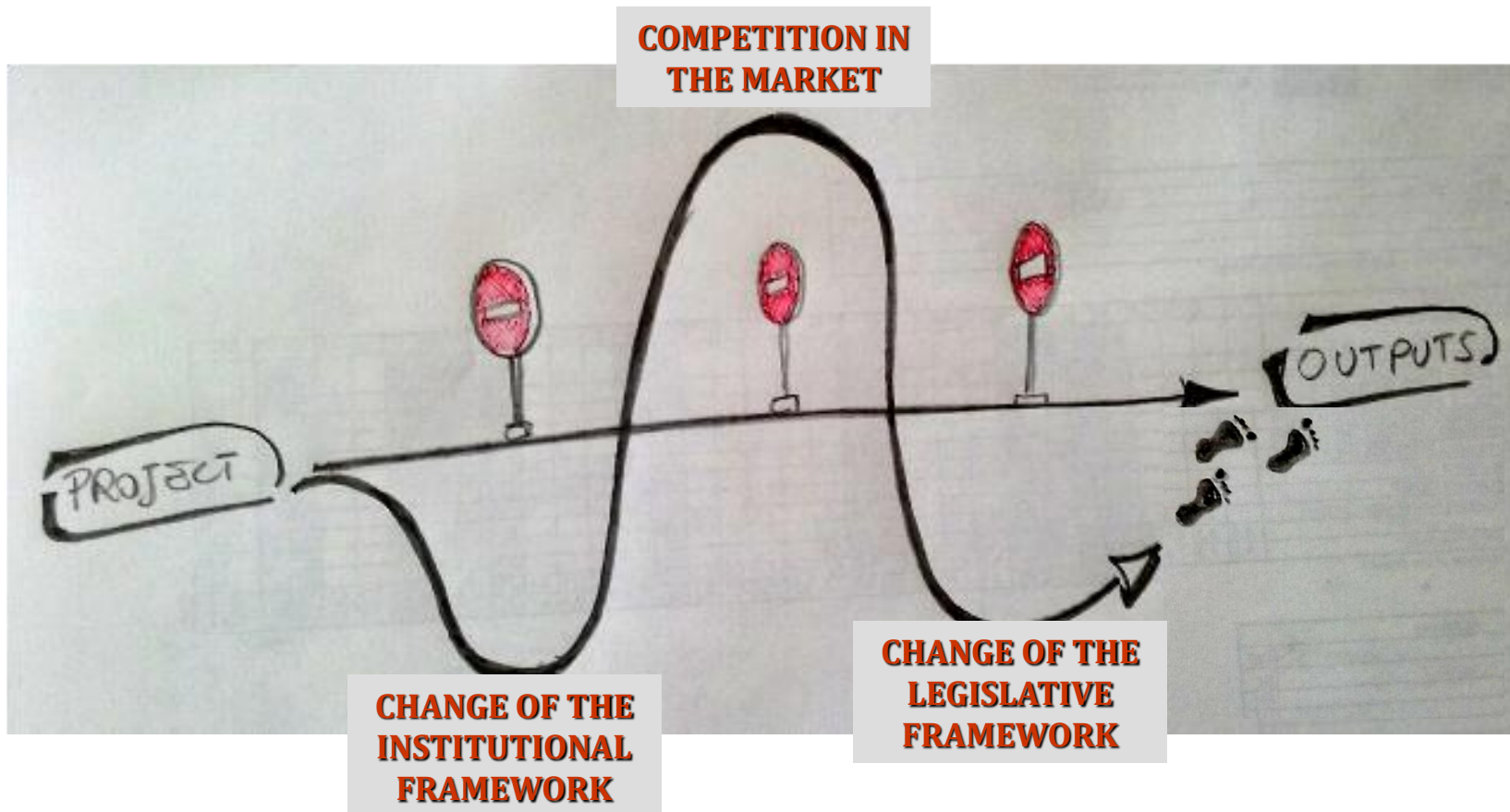
Events and Newsletters

Tender documents

.....and coming soon:

- Guide on EPC
- Final Publication
- Public report on ERDF Energy Fund

.....still some steps to go....



2020Together project:

Silvio De Nigris: silvio.denigris@regione.piemonte.it - 0039.011.432.3177