

Interreg


CENTRAL EUROPE




European Union
European Regional
Development Fund

Dynamic Light

TAKING
COOPERATION
FORWARD

 Meeting Wroclaw (Poland) – 19/20/21 April 2017

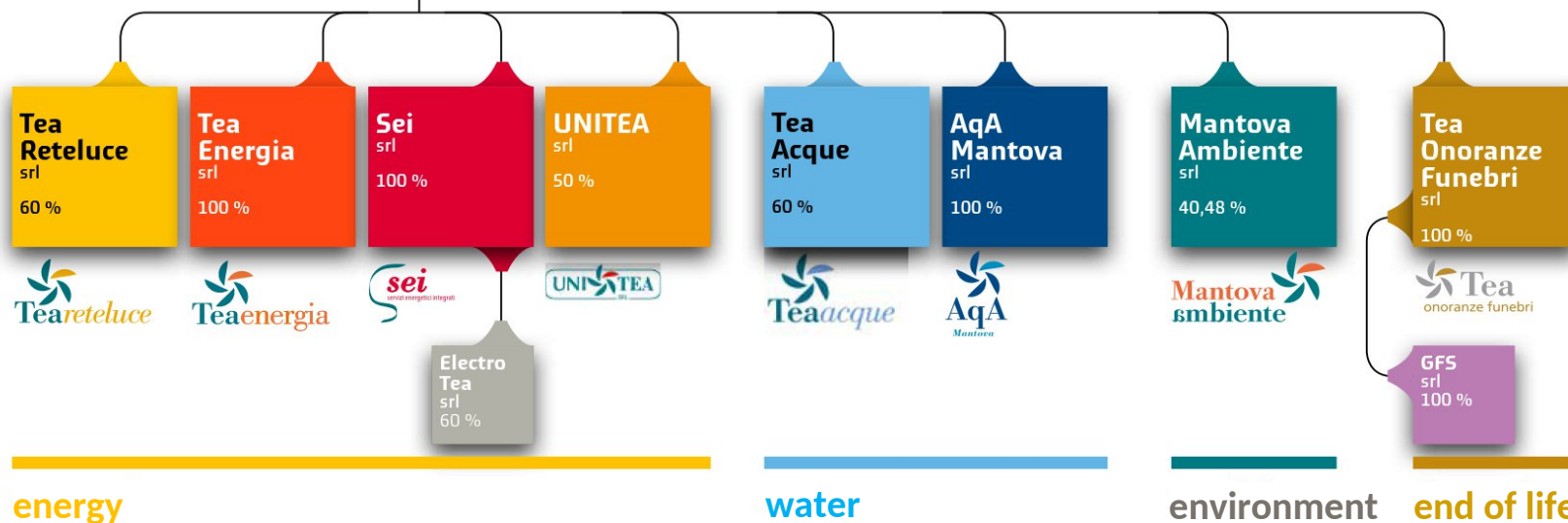
 **SMART CITY LIFE:
TECHNOLOGY AND SERVICES FOR THE FULL USABILITY OF GREEN AREAS**

 Dynamic Light – Tea S.p.A., Mantova

GROUP STRUCTURE



MULTIUTILITY FOR LOCAL MUNICIPALITIES
Tea is a corporate group with subsidiaries operating within the public territorial service sphere



TEA AT A GLANCE



60 SHAREHOLDERS
2.339 KM2
(Municipalities)

567 EMPLOYEES



94% live in Mantova
and its province

48 JOBS

24/24 H

365 D/Y



Served Population
290k



Gas & Elec. Customers
54k | 17k



Served Population
277k



BOSCO VIRGILIANO PROJECT

Bosco Virgiliano is an extended green area at the edge of Mantova and a very known hangout for recreational activities by all the community. In the same area you can find public and private sports facilities, fields used for social vegetable gardens and accommodation facilities for children and young people of “Villaggi SOS” Association.



Revenue
opportunities

The
light
tech
The
the
Bos

with



ACTIONS

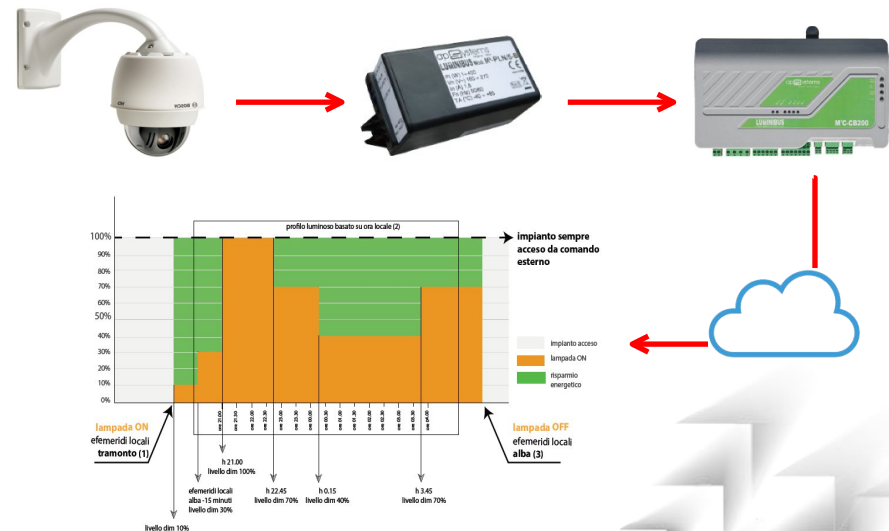
- **LIGHTING REDEVELOPMENT**

Replacement of the traditional light sources with LED lighting systems, providing an estimated energy saving of 65% and a better “light” distribution, aimed at eliminating light pollution (amount of “Urban Sky Glow” < 0,49 cd/Klm)



- **USE OF VIDEO CAMERAS WITH “VIDEO ANALYTICS AT THE EDGE” FOR ADAPTIVE LIGHT CONTROL**

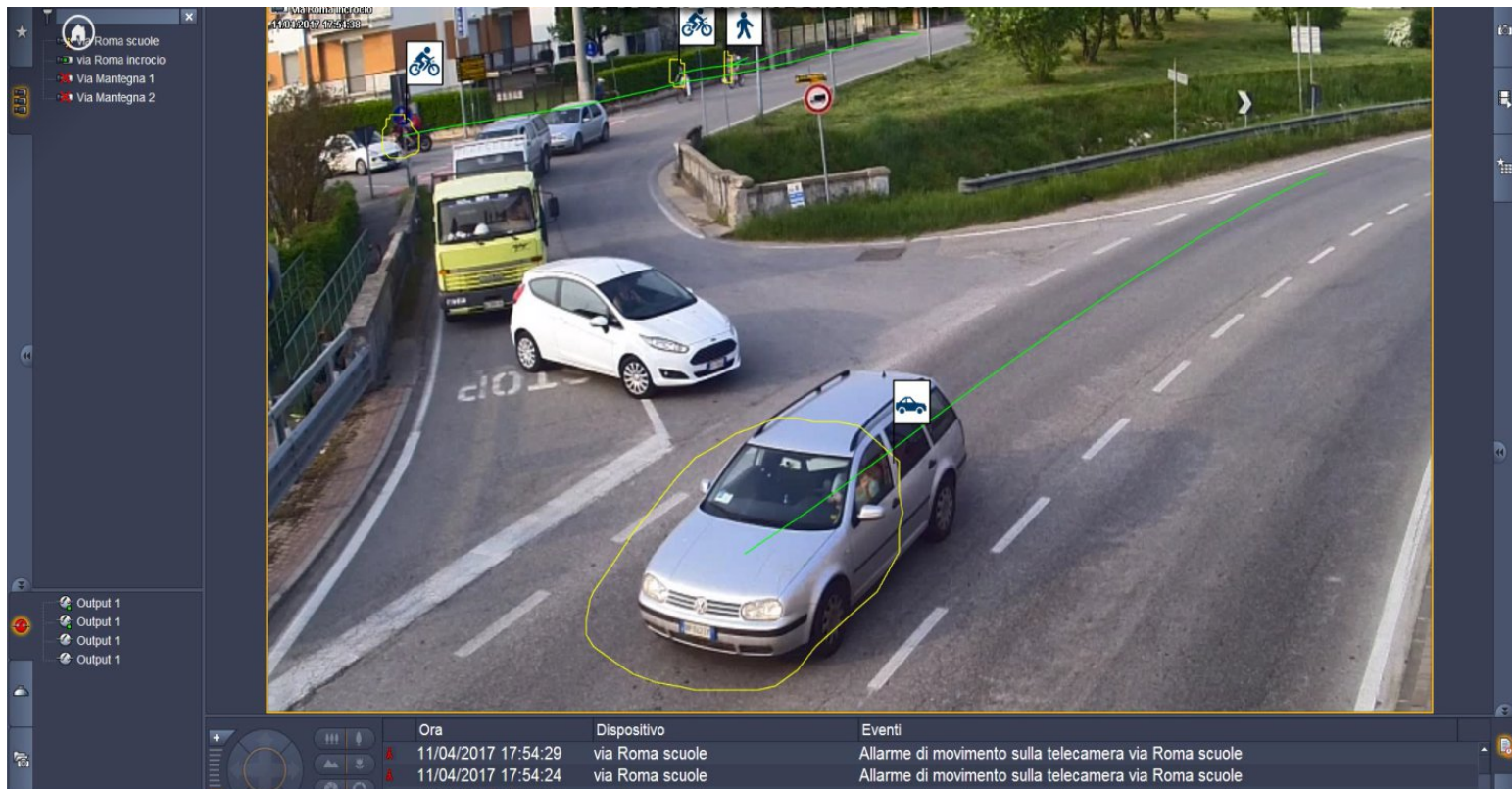
On the basis of detection and movement on the field (pedestrians, bicycles, service vehicles), the amount of radiated light is regulated through dimming, in order to guarantee people security and an efficient consumption at the same time.



ACTIONS

- **ACTIVATION OF CONTEXT VIDEO SURVEILLANCE SYSTEMS**

Placement of security video cameras equipped with specific software that allow to automatically elaborate video signals, identify potential risks and send the information to a control center (morphological and forensic features, intelligence tracking, speed detection...)



ACTIONS

- **AIR QUALITY ANALYSIS AND CRITICAL EVENTS MONITORING**

Implementation of a measurement system regarding air quality parameters and a monitoring system of critical events (such as whirlwinds) using weather forecast services



- **INTERACTIVE TOTEMS**

Availability of touch tools in order to show touristic and recreational information, as well as the dedicated “Digital Guardian Angel” service (a tracking app activated within the green area)



ACTIONS

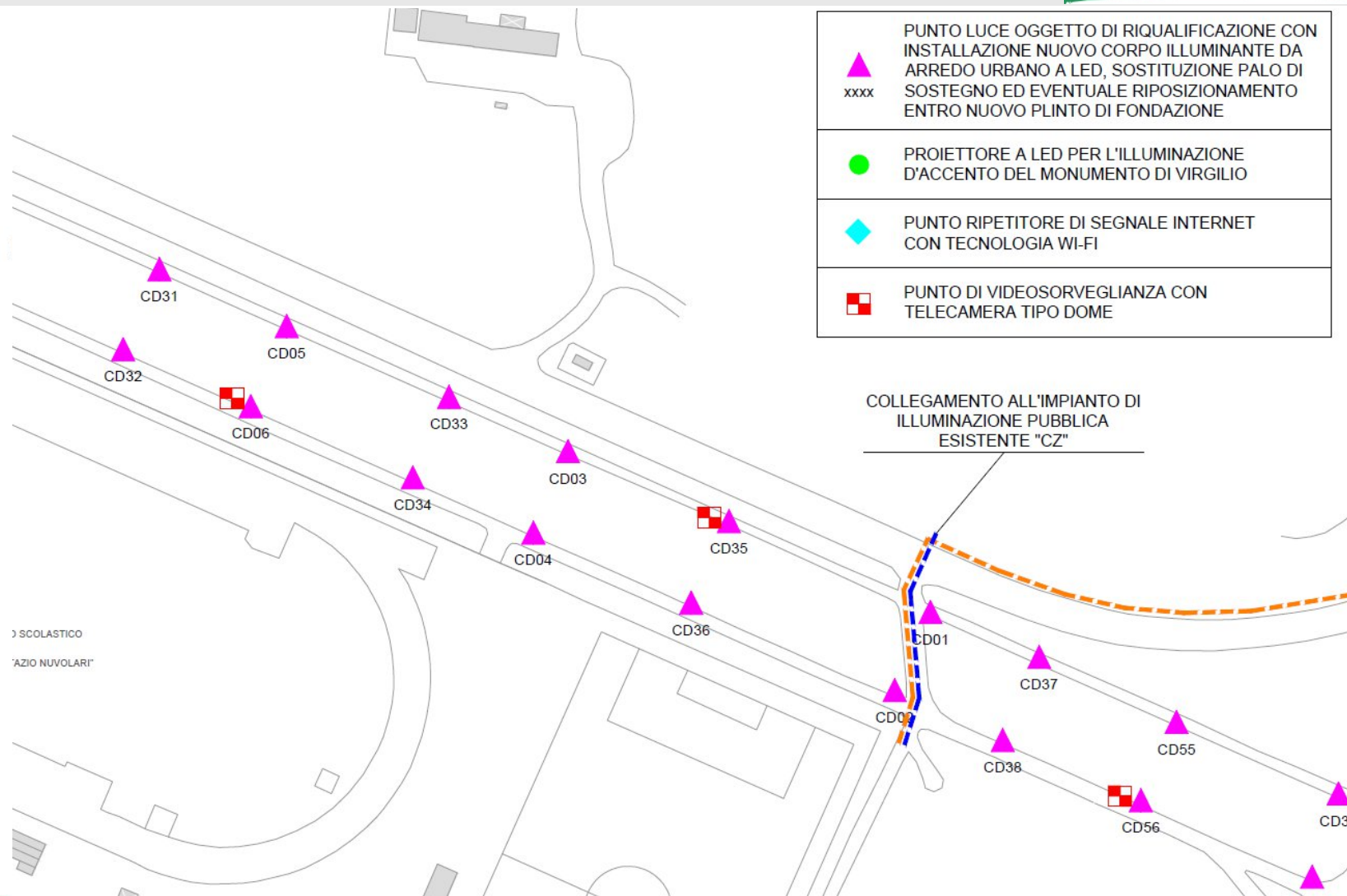
- **FREE WI-FI**
Free Wi-Fi Internet connection in the whole green area



- **CHARGING STATIONS FOR ELECTRIC VEHICLES (CARS, MOTORBIKES, SCOOTERS, BICYCLES)**
Promotion of eco-sustainable mobility



PLAN LAYOUT



The entire operation provides:

- *Structural redevelopment* of the current 58 light fixtures and realization of optical fiber infrastructure
- *Revamping* of light sources with the installation of n. 58 “Full Cut-Off” LED technology lighting systems, equipped with bio-dynamic light (4.000K ÷ 2.500K) and point-to-point remote control
- *Renovation* of the electric power and control panel with implementation of the point-to-point remote control system through “power line” technology and optical fiber connection

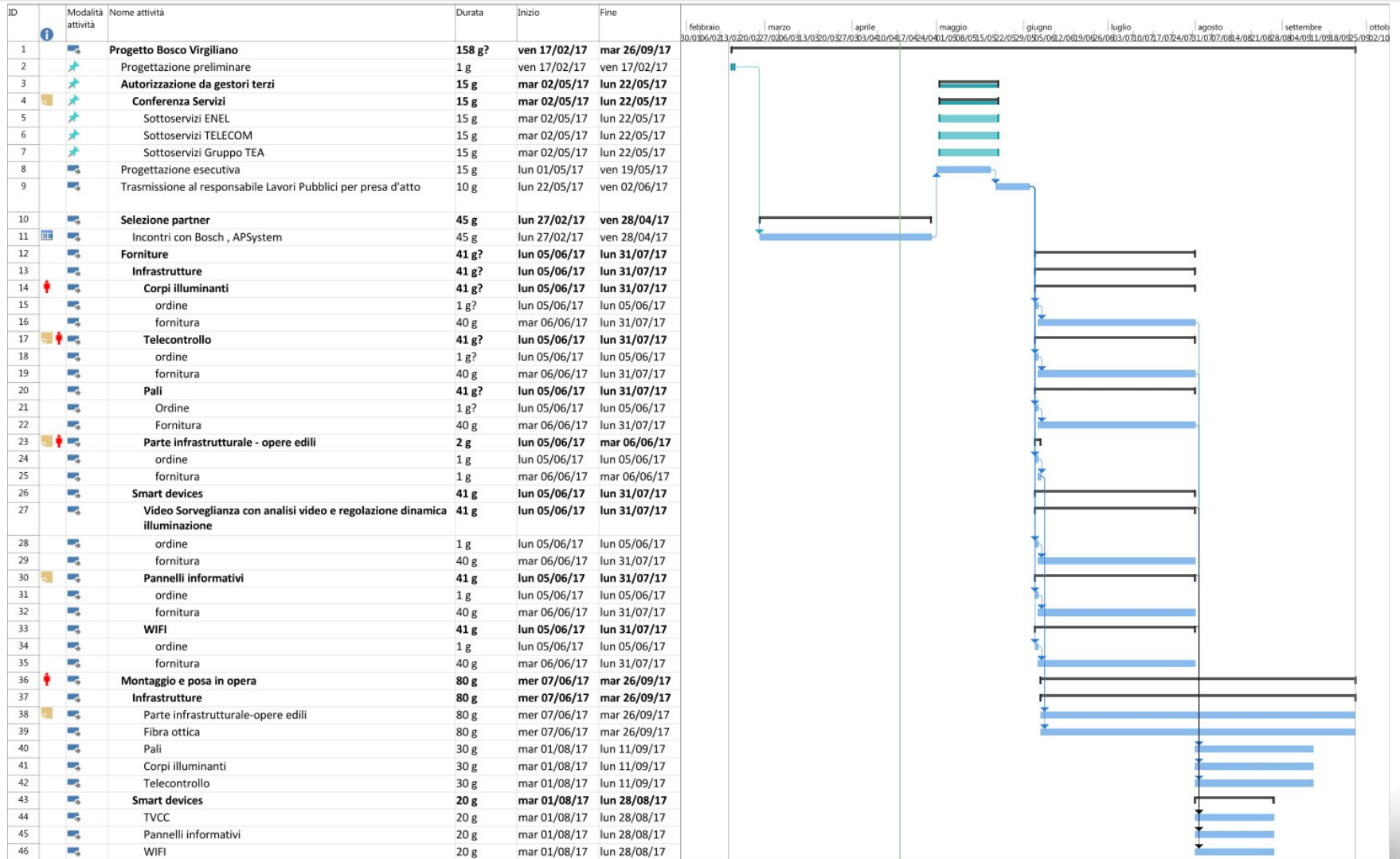
Currently installed power: 7,00 kW

After-Revamping power: 2,00 kW

Estimated energy saving (Revamping + Dynamic): ⚡65%, considering the operating outline determined by AEEGSI (4.196 average annual hours)



GANTT



ECONOMIC DIMENSION OF THE ACTION

BUDGET LINES	COST (EUR)
Public lighting infrastructure (dynamic lighting with LED)	54.000,00
Construction works	9.800,00
Video surveillance system	19.200,00
Wi-Fi network	4.500,00
Information panels	27.500,00

- **Energy savings:** with LED / TLC PP system, about 65%
- **CO₂ savings:** about 8 tons/year – 4 TEP/year



Lighting Project Event October 2017 – Mantova, Italy



We will gladly welcome all of you in our beautiful city!

