



netcityled

tomorrow without limits

***A Smart Street Lamp that Reshapes
Public Lighting as Telecom Network***

About Us

- NetCityLed started registering a national patent, followed by an international one, to develop a technology to revolutionize public lighting system, which is generally inefficient, not compliant with technical requirements by law, and highly expensive.
- We developed an integrated system which will be able to become a fundamental building block for the optimum design of Smart Cities' infrastructure.
- NetCityLed system
 - integrates into a street light a number of technologies which can be selected and customized according to customer needs
 - allows easy installation, upgrade and maintenance
 - ensures energy cost saving through innovative lighting management
 - offers new revenues both to public authorities and telco from services by creating new networks over existing infrastructures.



Our Team & Partnerships

NetCityLed

Fabio Leoni	CEO / Team leader
Salvatore Maisano	Advisor / International Market Development
Giuliano Liberati	Partner / Operations
Gianni Meloni	Partner / Technology
Giorgio Ottaviano	Advisor/ Technology
Ornella Pagnini	Advisor/ Finance

ENEA - Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile- Smart Energy Dept.

Cubit Innovation Labs, Pisa www.cubitlab.com

Polo Tecnologico Navacchio, Pisa www.polotecnologico.it

UNIFI - Università di Pisa-[Information Engineering Dept.](#)

UNIFI - Università di Firenze- [Information Engineering Dept.](#)



Market needs and opportunities

Cities are not *smart* yet: mobility, CO2 emissions, safety, security.

Municipalities have major needs in terms of services innovation, efficient energy management and environmental sustainability. Lack of financial resources.

Service Providers need efficient-pervasive data networks.

TLC companies have to make huge investments to implement antennas in a capillary way on the territory and develop efficiently the new 5G networks. They face complex administrative regulations and processes, high structural and maintenance costs.



Why now?

Next Generation EU: the European Recovery Plan is driving many changes in the way governments- central, regional and local- will face a new digital world

The Net City Led system perfectly matches with 4 of the 6 pillars of the Italian PNRR- *Piano Nazionale di Ripresa e Resilienza*

- **Infrastructure**- Public lighting smart grid
- **Digital transformation**- connectivity services (5G, IOT, Wi-Fi) for public administrations
- **Green Economy**- energy saving with Artificial Intelligence
- **Research**- innovation projects with Universities



ITALIAN MARKET OPPORTUNITIES

Italy has more than 8,000 municipalities and more than 14 million street lamps. Many smart city projects and a widespread network for 5G are expected.

NetCityLed met already few times with Enel X, the most important customer for our smart lamp in Italy; Enel X owns and manages almost 3,8 million poles. Market analysts estimate that smart lamp could reach 4/10% of the poles, that is between 500,000 to 1.4 million units. This activity could generate revenues up to 1 Billion Euros only in Italy. We started discussions with potential customers such as: TIM, VODAFONE, ILIAD, WIND TRE, INWIT, CELLNEX, BAI COMMUNICATIONS, PTI.



INTERNATIONAL MARKET OPPORTUNITIES

There are more than 400 million street lamps in the world and there will be many smart city projects, but above all the development of 5G networks by TLCs will create many opportunities for systems like ours. Net City Led is starting technological and commercial relationships for trials in Brazil, Thailand and Japan.

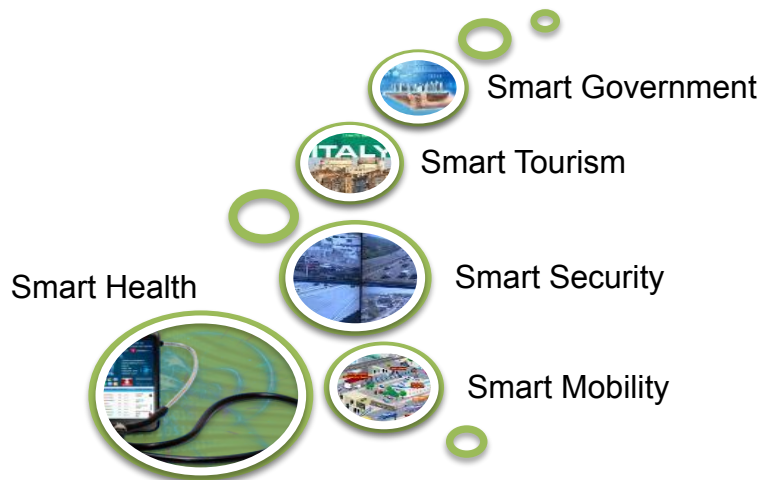
In Brazil- a market with great potential both in terms of size and expansion trend- we are developing a series of collaborations with research centres and Telco, and we have signed agreements to install 43,000 lamps in private schools.



Many applications, from Public Lighting to Smart City

The NetCityLed system has a modular structure that allows the integration of many applications

- Telecommunication (Wi-Fi, IOT, 5G)
- Security and Safety
- Public Administration Services
- Advertising
- Lighting management
- Telemedicine
- Tourism
- Environmental Control
- Mobility and Traffic Control



NetCityLed Business Model

NetCityLed is a smart lighting company which leverages know-how and patents to cooperate with OEMs to act as:

- **Technology Enabler**- smart light products sale
- **Business Partner**- revenue sharing with Public Administrations, Telco, Tower Companies, Neutral Host, other Service Providers

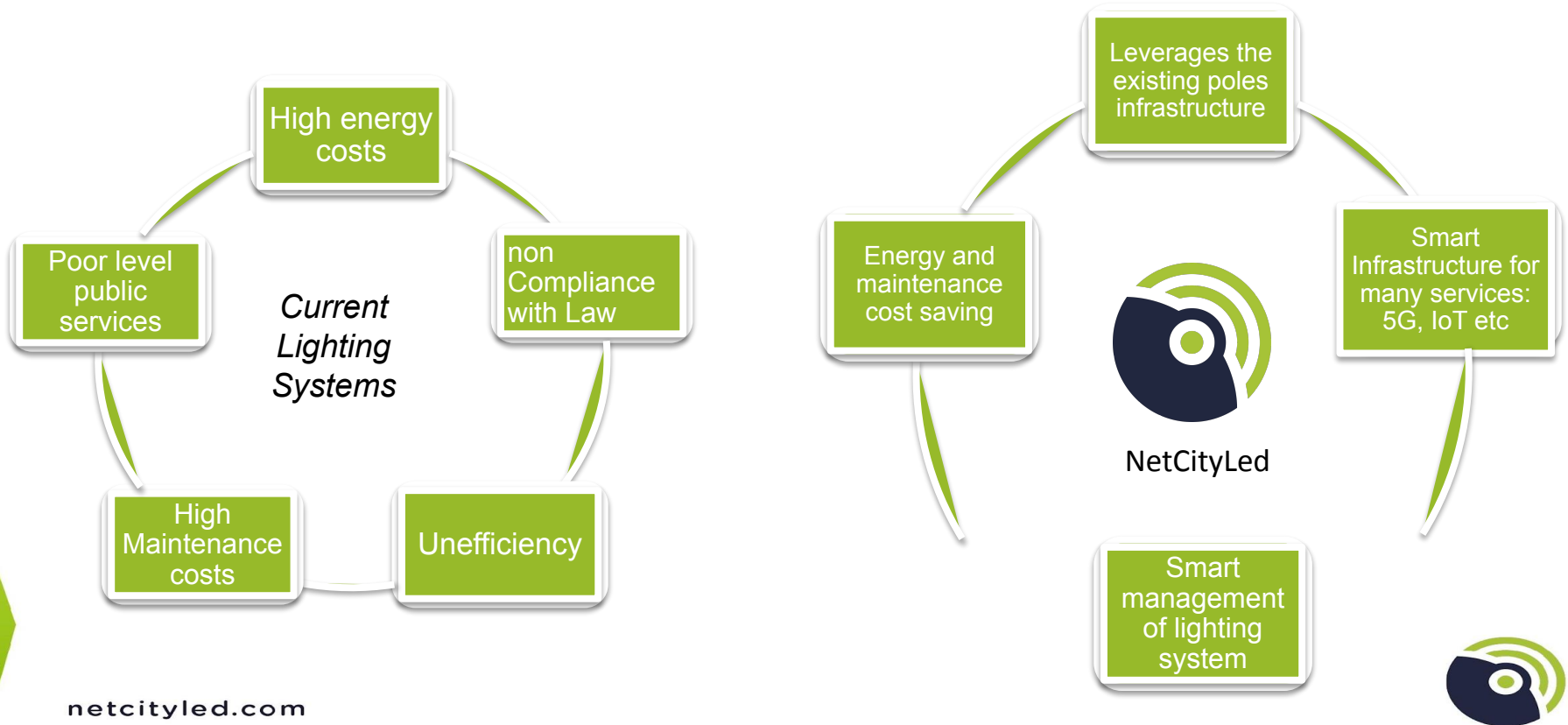


Many benefits, for Public Administration and Companies

- cost reduction and sustainability for municipalities: 80% reduction in energy consumption, 50% less CO₂ emissions
- management of lighting and reduction of night-time consumption in accordance with the law; the only smart lamp that complies with the Italian environment ministerial decree of 03.28.2018
- better monitoring of the territory, safety, security (cameras and sensors for pollution, traffic, water, fires...)
- reduction of administrative processes and implementation costs of new communication networks and services (5G for smart city, big data, IOT)
- infrastructure efficiency, flexibility, easy maintenance and upgrade
- important revenue streams for municipalities, Telcos and service providers
- suitable for all categories of roads, parking lots, cities



NetCityLed advantages at a glance



NetCityLed smart lamp

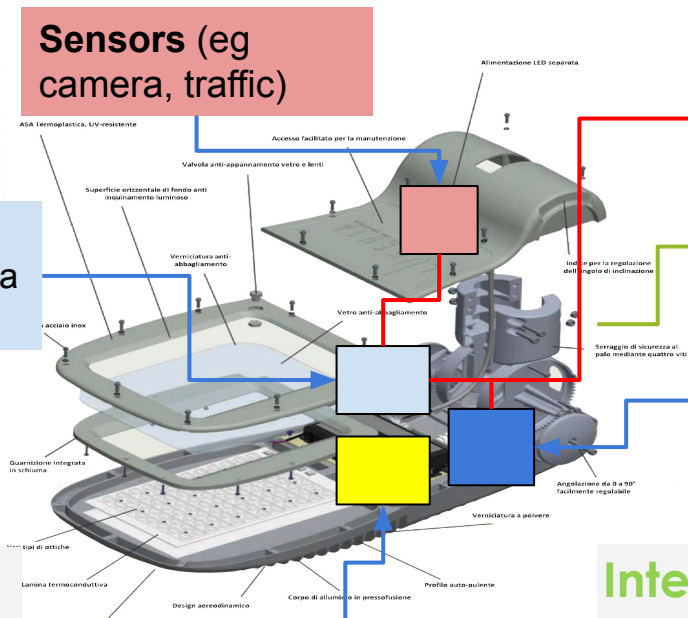


IoT controller
connects to IoT Server via
LoRaWAN or Powerline



Italian Patent
data communication
integration into a street lamp

**Sensors (eg
camera, traffic)**



Power supply

**Easy mounting on
existing poles**

5G Radio Unit
connects to
Main Unit via FO

LED driver

International Patent
power management through
AI algorithm



Net City Led – *tomorrow without limits*



CONTRIBUTE TO THE GLOBAL EFFORT TO REDUCE CARBON EMISSIONS AND MAKE CITIES A BETTER AND SAFER PLACE TO LIVE

PROVIDE MUNICIPALITIES WITH AN INNOVATIVE, GREEN AND AFFORDABLE, SMART LIGHTING SOLUTION

WE BELIEVE IN PUBLIC AND PRIVATE PARTNERSHIP AND WE CAN CREATE GREAT VALUE FOR MUNICIPALITIES, TLC COMPANIES AND VALUE ADDED SERVICE PROVIDERS

netcityled.com

