



Intelligent Lighting

Rolf Adam, Director Industry Sales EMEAR
Energy, Manufacturing & Transport

EcoSummit London
October 16, 2013

Global Trends and Relevance for Cities



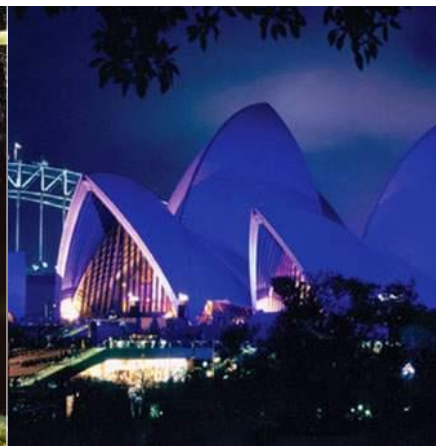
Population rise & Urbanization

New challenges are arising as our cities grow at an unprecedented speed.



Surging demand for energy and resources

There are rising concerns over price, availability and environmental impact.



Cities want to establish identity

Inter-city competition for people and business is on the rise.



Growing connectivity

There are huge new opportunities to improve urban life through intelligent, highly efficient solutions enabled by ICT.

We want to enable cities to achieve their ambitions



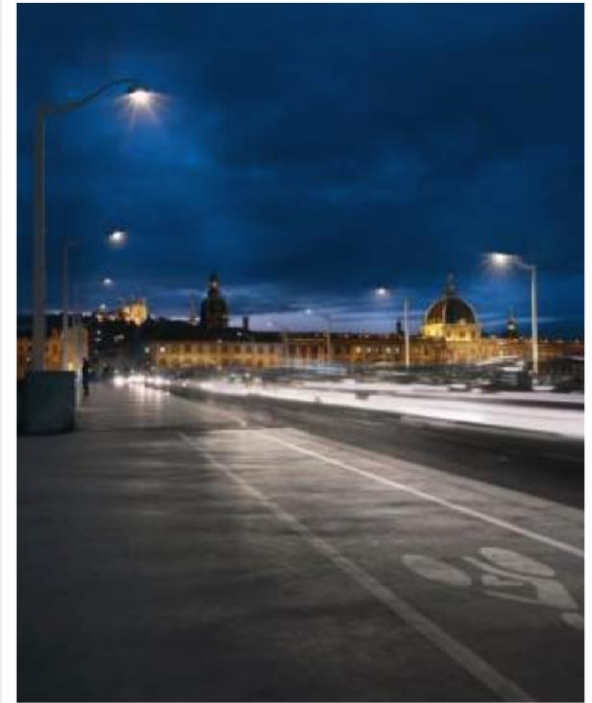
Image

Better look.
Better habitat.



Safety

Safety sense from citizens
Traffic safety & security of
land



Efficient management

More flexibility and control.
With fewer resources.

A photograph of a nuclear power plant featuring two large, green, hyperboloid cooling towers. The sky is blue with scattered white clouds. In the foreground, there is a complex network of metal pipes, walkways, and electrical equipment. A person wearing a hard hat is visible on a walkway. The overall scene is industrial and brightly lit.

20% energy = Lighting

Only 1% of installations have control systems to manage and regulate lighting usage

Adding intelligent controls can achieve savings of between 60 and 80%

Moving from dumb to Intelligent Lighting networks – improved operations

Traditional lighting operations



Physical failure inspection

- A scouting team drive during night to visually spot failures



Paper based mapping & archiving

- Use of paper maps and files to manage the maintenance of the lighting stock



Undifferentiated lighting levels

- Lights burn uniformly throughout the night



Estimation based metering

- As multiple entities are connected to the grid, the energy consumption is roughly estimated by the utility

Intelligent lighting operations

Remote monitoring

- The lighting failures are automatically reported by the system, saving time and costs



Smart asset management

- The digital system smartly plans and routes the maintenance works to minimize street blockages



Smart dimming & scene setting

- Lights are dimmed during low traffic hours to save energy or enhanced in problematic neighborhoods to improve safety



Intelligent energy metering & billing

- A smart meter accurately calculates the energy consumption taking into account the varying rates and automatically bills all entities



The Potential of Public Lighting Infrastructure

- Public lighting as a key application, providing **safety**, **identity** and facilitating **traffic**. It allows effective reduction of a city's energy use
- Public lighting is an exiting infrastructure offering opportunities for diverse and innovative **public service applications**

The image displays two Philips brochures. The top brochure, titled 'Recharging station', features a blue vertical light pole with a charging station. It is divided into 'Public market' and 'Private market' sections. The 'Public market' section mentions 'Meet law forbid third party selling power' and 'Web sites available to locate charging stations'. The 'Private market' section mentions 'Progressive retailer have already signalled their interest in acquiring EV charging stations'. The bottom brochure, titled 'Advertising', shows a man looking at a smartphone next to a light pole with a screen. It includes text about 'Obtaining information via the web can be cumbersome & expensive' and 'BRING YOUR OWN SCREEN!'. Both brochures have 'PHILIPS' at the top and 'Internal use only' at the bottom.

PHILIPS

Recharging station

Community services

Public market
Meet law forbid third party selling power. Third party simply rent parking spaces in front of chargers for an incremental cost.
Web sites available to locate charging stations.
Utility charge can be given for free at off peak time to stimulate commerce.

Private market
Progressive retailer have already signalled their interest in acquiring EV charging stations. "PLUG CAFE" as in interest communities like Harley Davidson, Star Buck. EV charging used as promotional /club rewards.

Advertising

Obtaining information via the web can be cumbersome & expensive research is done globally first and needs to zoom down on you one "click" at the time.
SNLI offers the ability to aggregate the information that is around it, and deliver it on your screen.
NO VISUAL CLUTTERING,
NO SCREENS FOR VENDALS
NO GLOBAL SEARCH
NO GLOBAL CONFUSION
BRING YOUR OWN SCREEN!

Source: Lumec / J.F. Simard

Retailing and Promotion

Advertising

Outdoor mart and commercial areas will benefit from a point of presence directing customers to their stores.

Obtaining information via the web can be cumbersome & expensive . research is done globally first and needs to zoom down on you one "clic" at the time.

SNLI offers the ability to aggregate the information That is around it, and deliver it on your screen

**NO VISUAL CLUTTERING,
NO SCREENS FOR VENDALS
NO GLOBAL SEARCH
NO GLOBAL CONFUSION**

BRING YOUR OWN SCREEN !



Charging Station

Community services



Public market

Most law forbid third party selling power. Third party simply rent parking spaces in front of chargers for an incremental cost

Web sites available to locate charging stations

Utility charge can be given for free at off peak time to stimulate commerce.

Private market

Progressive retailer have already signalled their interest in acquiring EV charging stations. "PLUG CAFE" as in interest communities like Harley Davidson, Star Buck. EV charging used as promotional /club rewards.



Parking Meter

Parking meter pay stations

Parking meter pay stations are concentrated in large towers that clutter the streets and require walking around,

Simply walk to the next pole and swipe your I- phone



Sensing and Detecting

Sensing and detection of various products and/or situation makes public area safer.

Obtaining real estate rights from private land lords is increasingly challenging. Homeland security can benefit from a public and largely deployed infrastructure to install sensors and detectors

Mechanical :

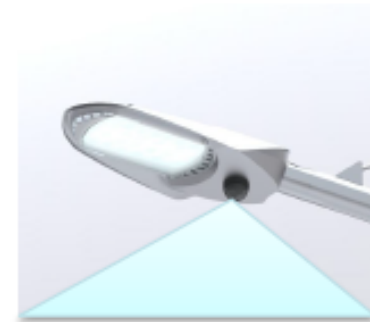
- Earth quake detectors
- Water pipe leaks
- Robbery and kidnapping

Chemical:

- Radiation
- Chemical & air pollutants
- Weather reports

Visual :

- Surveillance cameras



Socially Networked Lighting Infrastructure

Stakeholders alignment around shared public communications

- Public services assistance and guidance.
- Homeland security public safety
- Private investors animation and advertizing

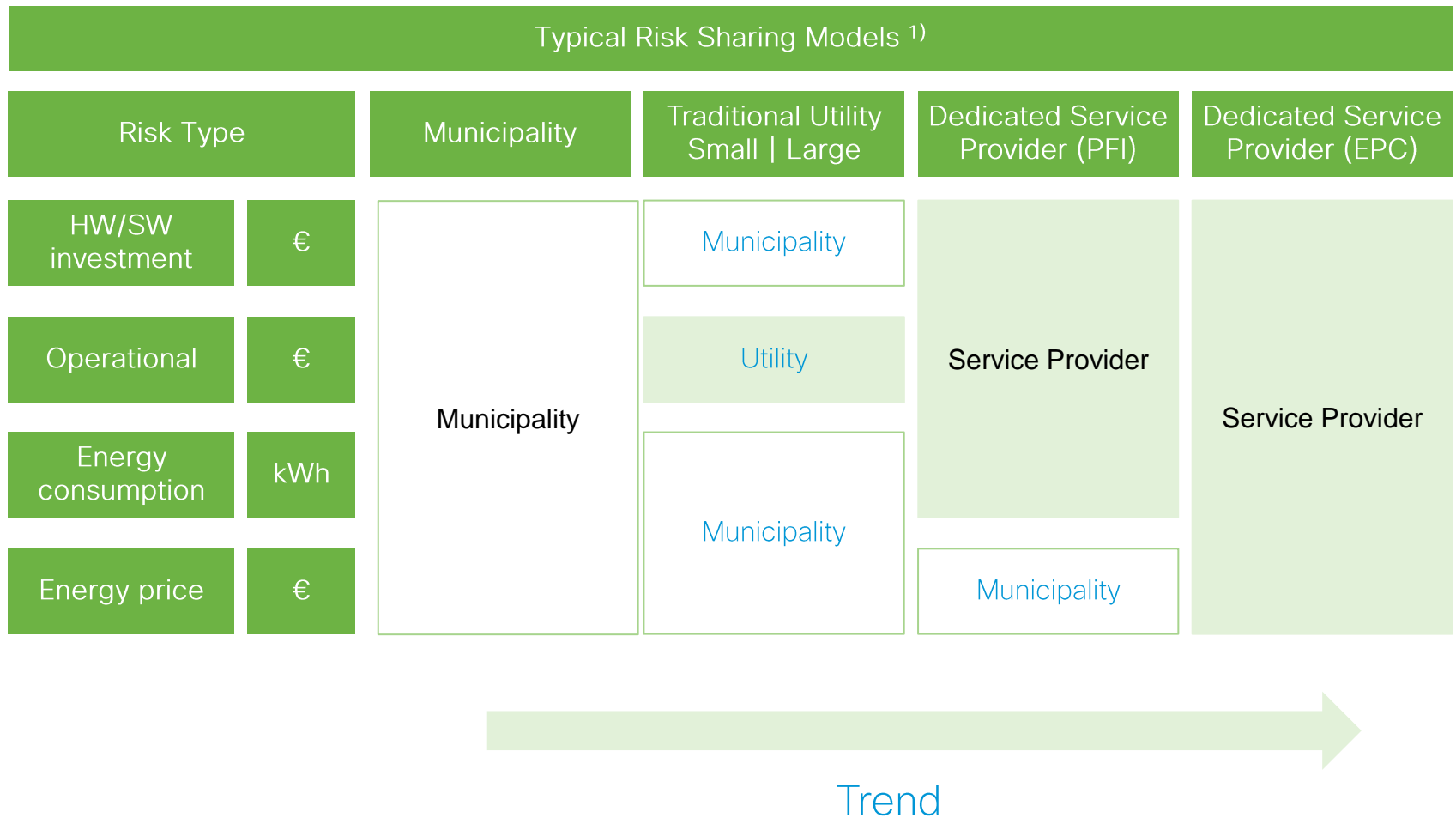
Advertising

Homeland Security

Community services



Intelligent Lighting Driving New Business and Operating Models



Note: 1) Typical models; broad range of variations can be observed in the market today
Source: Humatica

Outlook

- Business, Political, Technological and Standards development efforts are driving the outdoor lighting world into a new reality, a new ecosystem.
- In the past the streetlight was a standalone device, in the future it will be impacted by many issues not resident on the pole, on the street, or from the power source.
- This presents a challenge and an opportunity for those progressive organizations that are both able to see the future and willing to embrace the future.
- We are committed to drive the dialogue and partner with cities, utilities and other OEMs



Your Cisco Contact



Rolf Adam

Director Industry Sales EMEAR
Energy, Manufacturing & Transport

roladam@cisco.com

+49 160 969 21525

Thank you.

