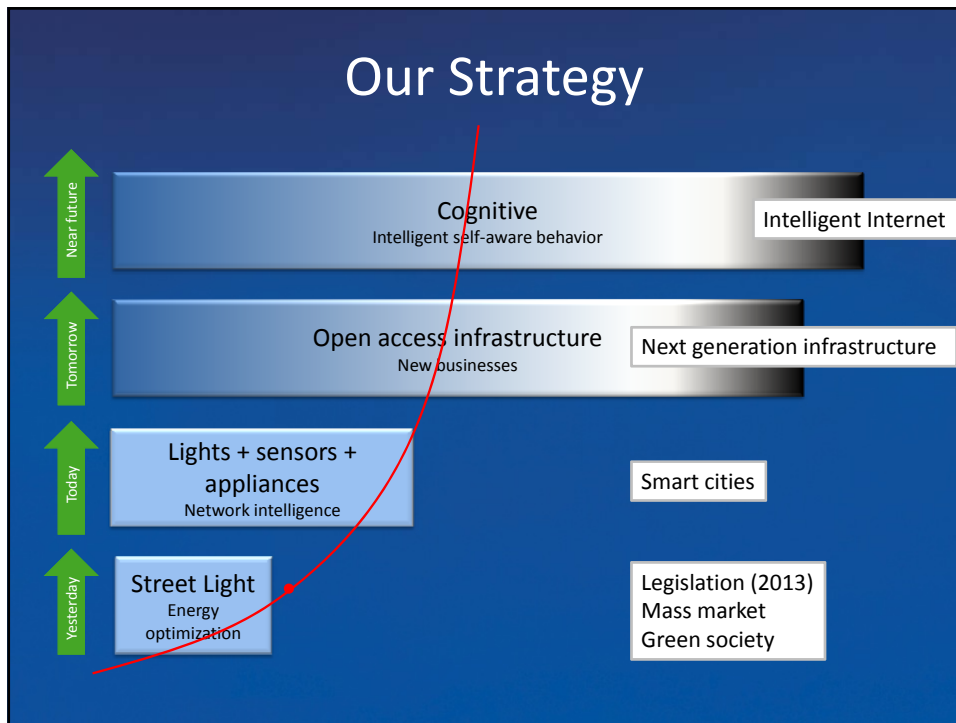




## What we do

- Our main competence is collecting and processing data from real environments such as cities, environment and internet to help decision makers to do better decisions.
- For that purpose we have developed various artificial intelligence algorithms and methods which have been already installed in British Telecom, New York Times, Bloomberg, HIT and others.
- We use this algorithms and methods in business models for traffic monitoring, energy saving (example: street lights), environment monitoring and other public and private infrastructure.
- ELN – Envigence Lighting Network is the first step in our strategy



## 1. WHY TO CHANGE STREET LIGHTING?

- A. Aged
- B. High energy consuming
- C. High maintenance costs
- D. There is no cost control (where formed and why)
- E. Lack of control over dilapidated equipment (anomaly cancellation)
- F. We can not predict future costs, failures and investments (simulation)
- G. Non-ecologic

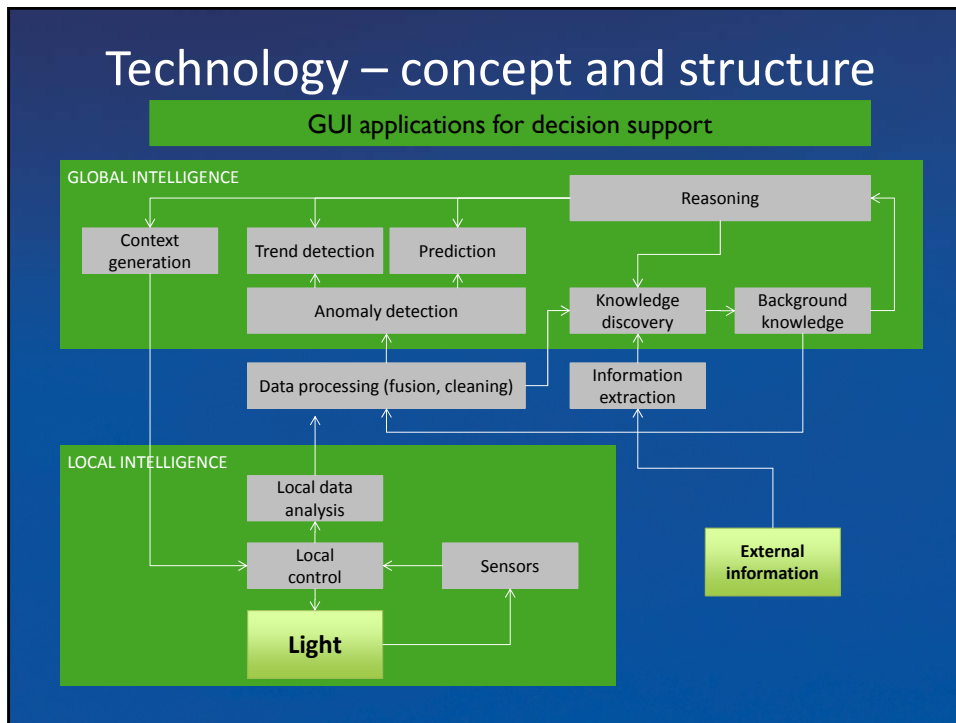
## 2. WHY NOT TO BUY CHEAPEST BUT HELLA-ENVIGENCE?

- A. We should choose to buy long term most efficient street lighting system
- B. Optimization with AI
- C. Network monitoring
- D. Anomaly detection with AI
- E. Greater safety
- F. Greater living confort
- G. First building block for Smart City
- H. Adding new additional services with "plug and play"

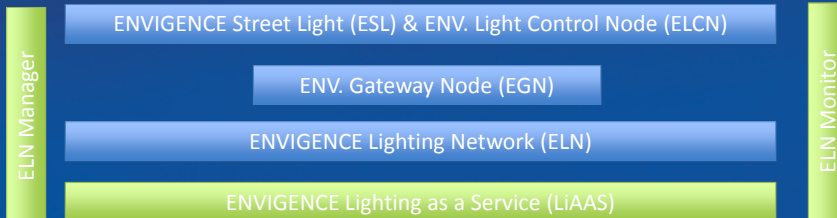
## 3. Why to start building Smart City with lighting system?

- A. People want new opportunities
- B. People expect new services
- C. To understand the city we need to get data, information and at the end knowledge how to run it
- D. Because new technologies are available

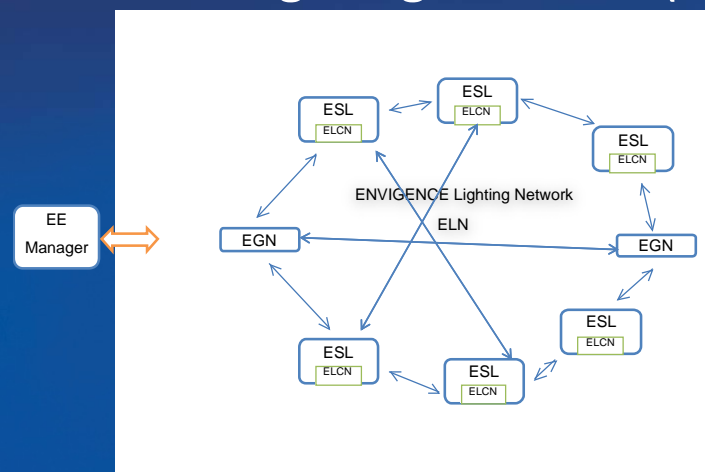
**ENVIGENCE**  
environmental intelligence

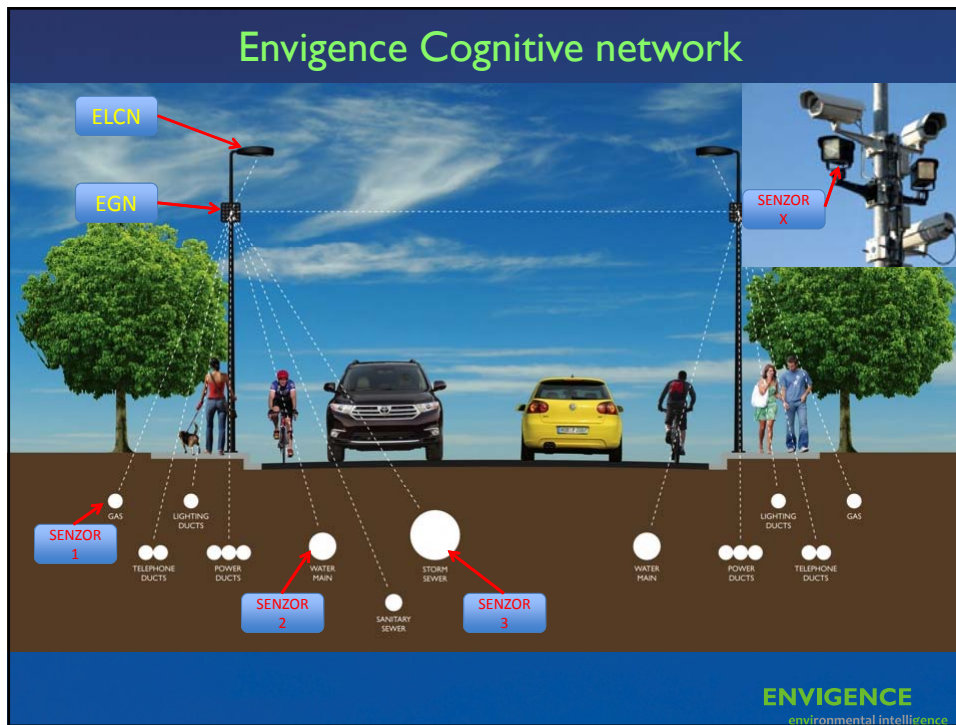


## ENVIGENCE Products and Services



## ENVIGENCE Lighting Network (ELN)





### 1. WHO NEEDS EE-MANAGER?

- Maintainer

### 2. WHO NEEDS EE-MONITOR?

- DECISIONMAKER!

### 3. WHO NEEDS Envigence Cognitive Network?

- Residents
- Municipality

**ENVIGENCE environmental intelligence**

## ENVIGENCE Street Light (ESL)

ENVIGENCE Street  
Light (ESL)



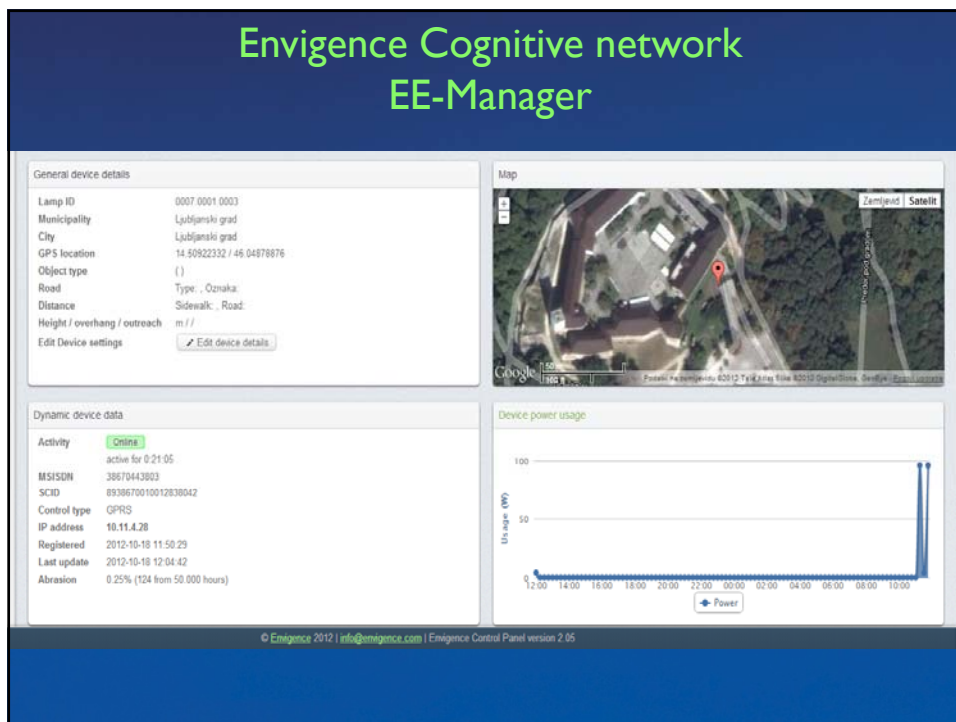
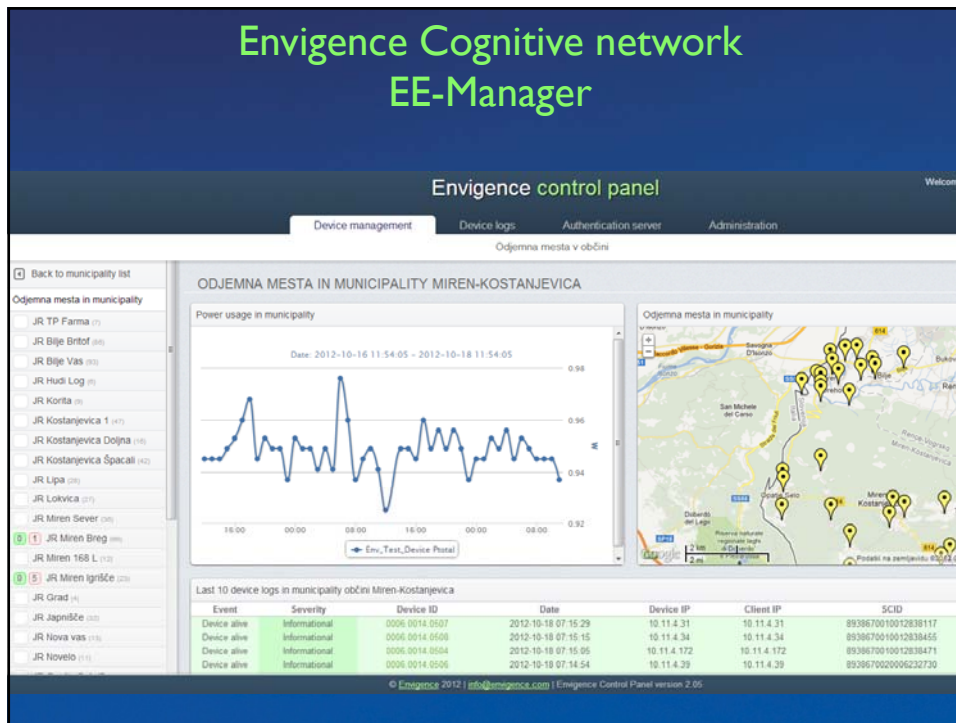
- Developed in cooperation with Hella
- Modular Design
- Low power consumption
- Remotely controllable
  - Wide range dimming
  - On/Off Control
  - Power consumption data collection
- Long lifespan

## ENVIGENCE LED Street Light (ELED)

ENV. LED Street  
Light (ELED)



- Ambient temperature range:  $-40^{\circ}\text{C} \sim +55^{\circ}\text{C}$
- Ingress protection rating: IP66
- Protection Class: 2
- Operating voltage: wide voltage range (US and EU market)
- Efficiency of driver:  $>90\%$
- Dimming range: 10-100%
- Luminous flux: up to 8400lm
- Power consumption: up to 105W
- CCT of LEDs: 3500 - 4300K
- Power factor:  $>0,9$
- Warranty 5 years
- Ready for EE Monitor Basic



## Engivence Cognitive network EE-Manager

Device management
Authentication server Administration

Log files

Select log type

All logs

Critical

Warnings

Informational

Manual search

Search logs

Search by event

Registrations

Alive reports

Dimm reports

SMS logs

### ACTIVE LOG FILES

Event	Severity	Device ID	Date	Device IP	Client IP	SSID	Description
Device alive	Informational	0007.0001.0003	2012-10-18 12:07:37	10.11.4.28	10.11.4.28	8938670010012830042	Device alive
Device alive	Informational	0009.0001.0002	2012-10-18 12:07:08	10.11.4.173	10.11.4.173	8938670020014016364	Device alive
Device alive	Informational	0007.0001.0003	2012-10-18 12:07:00	10.11.4.28	10.11.4.28	8938670010012830042	Device alive
Device alive	Informational	0009.0001.0002	2012-10-18 12:06:35	10.11.4.173	10.11.4.173	8938670020014016364	Device alive
Device alive	Informational	0007.0001.0003	2012-10-18 12:06:23	10.11.4.28	10.11.4.28	8938670010012830042	Device alive
Device alive	Informational	0009.0001.0002	2012-10-18 12:06:19	10.11.4.173	10.11.4.173	8938670020014016364	Device alive
Device alive	Informational	0007.0001.0003	2012-10-18 12:05:46	10.11.4.28	10.11.4.28	8938670010012830042	Device alive
Device alive	Informational	0009.0001.0002	2012-10-18 12:05:27	10.11.4.173	10.11.4.173	8938670020014016364	Device alive
Device alive	Informational	0007.0001.0003	2012-10-18 12:05:14	10.11.4.28	10.11.4.28	8938670010012830042	Device alive
Device alive	Informational	0009.0001.0002	2012-10-18 12:04:53	10.11.4.173	10.11.4.173	8938670020014016364	Device alive
Device alive	Informational	0007.0001.0003	2012-10-18 12:04:42	10.11.4.28	10.11.4.28	8938670010012830042	Device alive
Device alive	Informational	0009.0001.0002	2012-10-18 12:04:21	10.11.4.173	10.11.4.173	8938670020014016364	Device alive
Device alive	Informational	0007.0001.0003	2012-10-18 12:04:04	10.11.4.28	10.11.4.28	8938670010012830042	Device alive
Device alive	Informational	0009.0001.0002	2012-10-18 12:03:47	10.11.4.173	10.11.4.173	8938670020014016364	Device alive
Device alive	Informational	0007.0001.0003	2012-10-18 12:03:20	10.11.4.28	10.11.4.28	8938670010012830042	Device alive
Device alive	Informational	0009.0001.0002	2012-10-18 12:03:16	10.11.4.173	10.11.4.173	8938670020014016364	Device alive
Device alive	Informational	0007.0001.0003	2012-10-18 12:02:47	10.11.4.28	10.11.4.28	8938670010012830042	Device alive
Device alive	Informational	0009.0001.0002	2012-10-18 12:02:41	10.11.4.173	10.11.4.173	8938670020014016364	Device alive
Device alive	Informational	0009.0001.0002	2012-10-18 12:02:06	10.11.4.173	10.11.4.173	8938670020014016364	Device alive
Device alive	Informational	0007.0001.0003	2012-10-18 12:01:51	10.11.4.28	10.11.4.28	8938670010012830042	Device alive
Device alive	Informational	0009.0001.0002	2012-10-18 12:01:32	10.11.4.173	10.11.4.173	8938670020014016364	Device alive
Device alive	Informational	0007.0001.0003	2012-10-18 12:01:24	10.11.4.28	10.11.4.28	8938670010012830042	Device alive
Device alive	Informational	0009.0001.0002	2012-10-18 12:00:59	10.11.4.173	10.11.4.173	8938670020014016364	Device alive
Device alive	Informational	0009.0001.0002	2012-10-18 12:00:25	10.11.4.173	10.11.4.173	8938670020014016364	Device alive
Device alive	Informational	0009.0001.0002	2012-10-18 11:59:50	10.11.4.173	10.11.4.173	8938670020014016364	Device alive
Device alive	Informational	0007.0001.0003	2012-10-18 11:59:30	10.11.4.28	10.11.4.28	8938670010012830042	Device alive

## Engivence Cognitive network EE-Monitor

Engivence Environmental monitor
Welcome, Simon Mikolaj  
Logged in as Administrator  
Logout

Dashboard Public General Street lighting E1 Analyser Parking sensors Savings

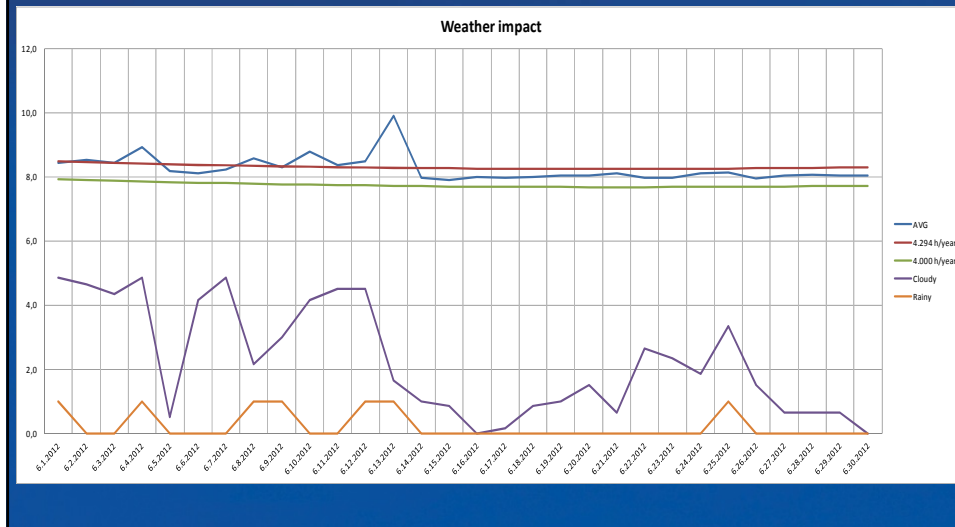
All pages

+ Add new item to dashboard

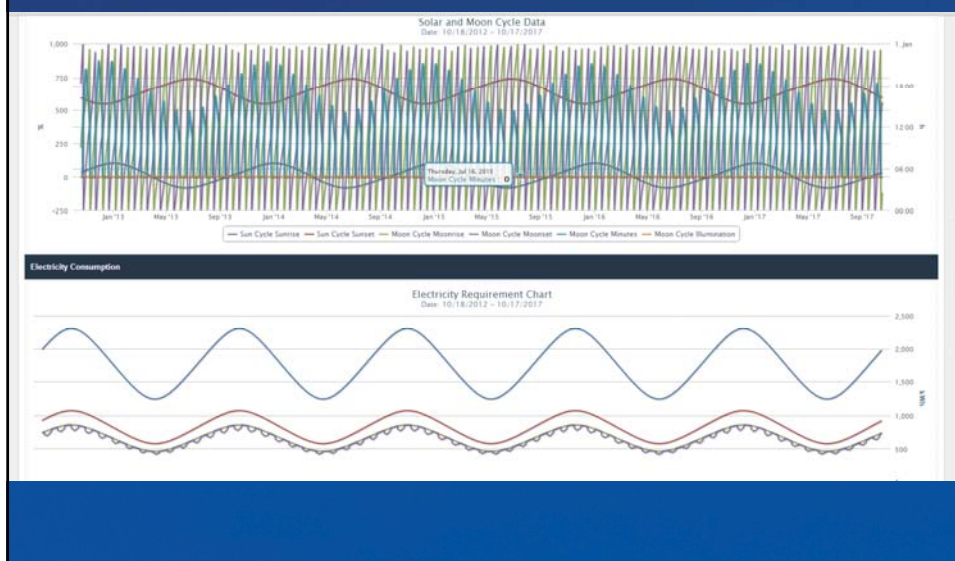
8

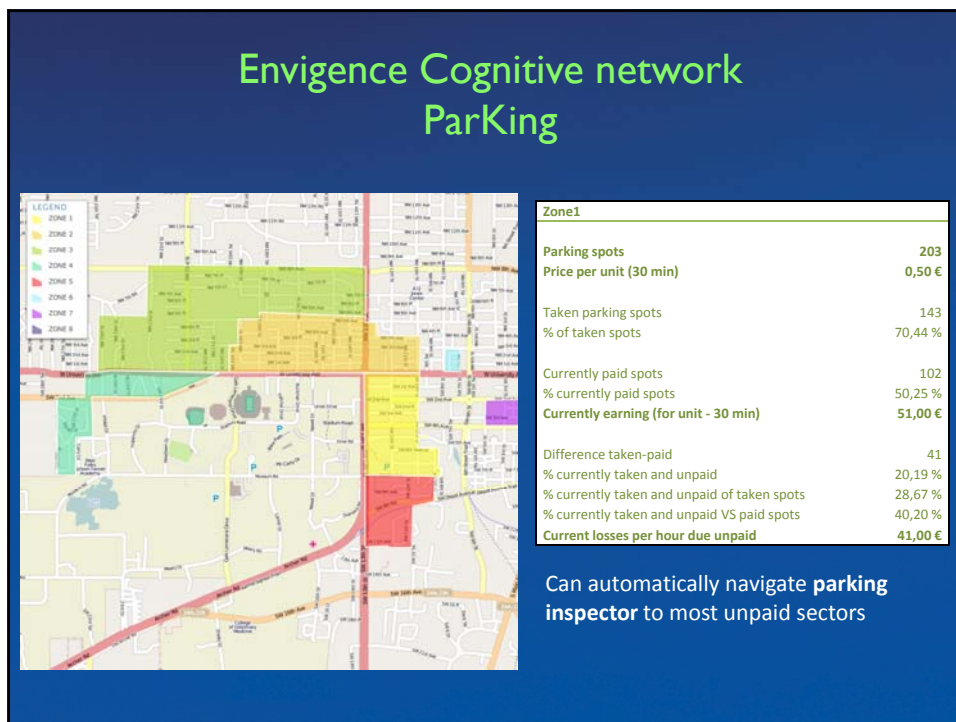
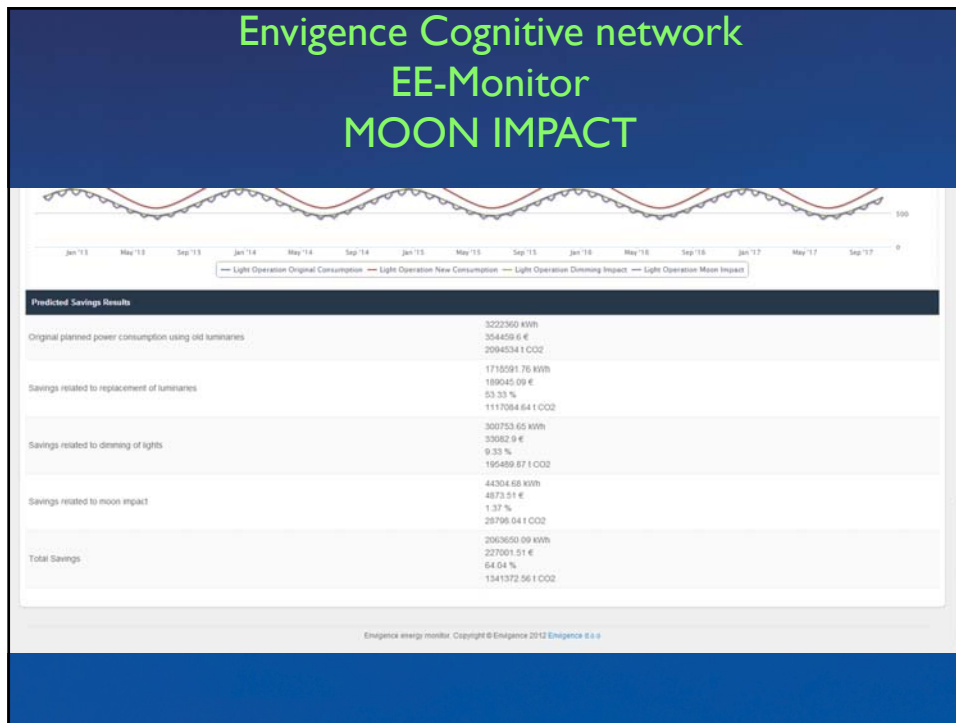


## Envigence Cognitive network EE-Monitor LOCAL WEATHER IMPACT



## Envigence Cognitive network EE-Monitor MOON IMPACT







Thank you!