

Smart lighting

Presentation 19/01/2016

Smart lighting

- I. Introduction
- II. Concept
- III. Investissement
- IV. Partners
- V. First Results
- VI. Experiences Consortium
- VII. Interaction with public authorities
- VIII. Specific Business
- IX. Lessons learned

Smart lighting

I. INTRODUCTION

➤ Goals :

- More energy save
- More efficacy
- Environment respect
- New Technology
- Introduction to smart city concept
- Wellness, security, mobility, citizenship participation
- aesthetic

➤ Constraints :

- European Directives
- Art 135 §2 communal law
- Lighting standards(EN 13.201)
- RW Technical requirements : CCT_{310V2000}
- Technical requirements of the sector : Synergrid
- Respect of Public service obligation : CWaPE
- CWaTUPE

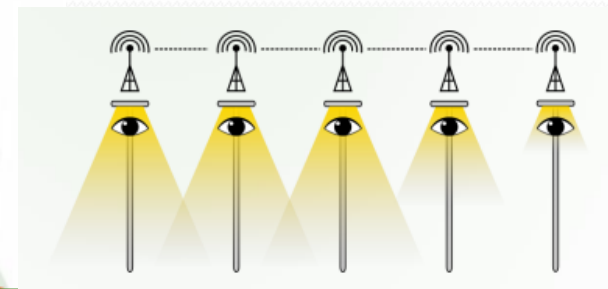
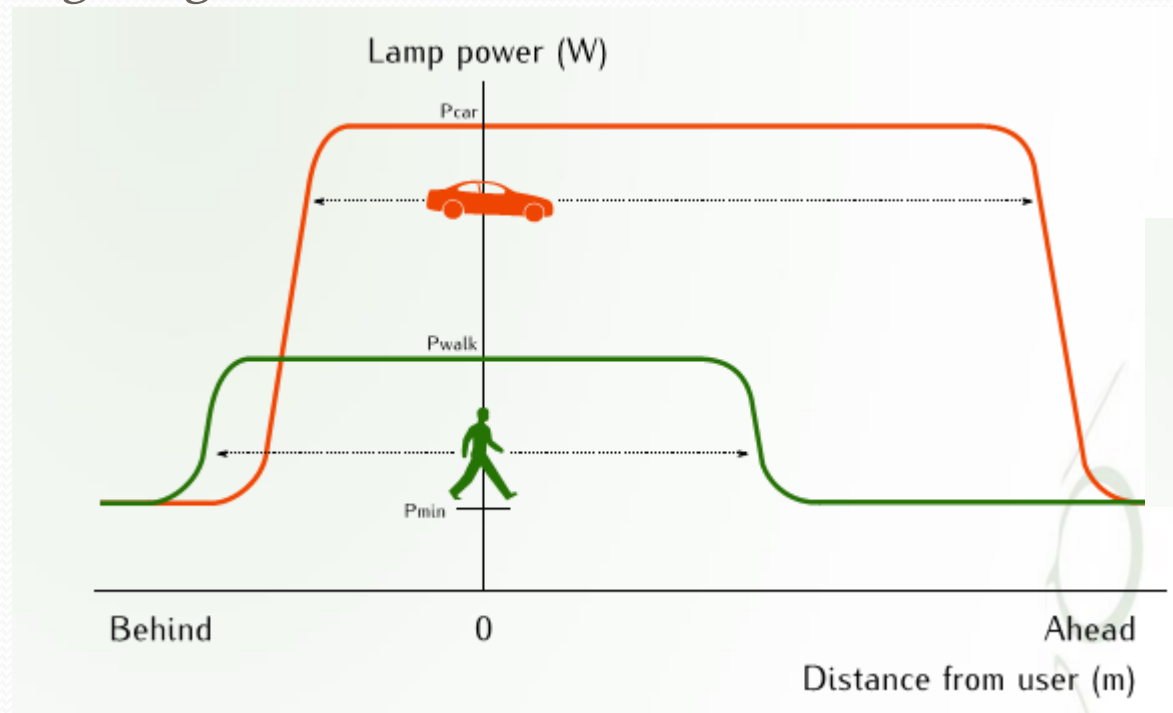
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- II. Concept
 - Lighting requirements
 - Traffic flow
 - Traffic speed
 - Crossing type and density
 - Dynamic lighting network
 - Distributed intelligence
 - Sensors on the field
 - Interpretation between neighboring luminaires
 - Local decision
- A bubble of light is generated by communicating agents, in a decentralized fashion.

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II. Concept

Smart lighting is a real time intelligent management model for street lighting



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- III. Investissement - Site Description
 - Contracting authority : Régie de Wavre
 - Residential area of about 400 houses
 - 282 standalone modules
 - Price : 615.000 € Public lighting include 227.000 € dynamic management
- Video on www.smartnodes.be/installations

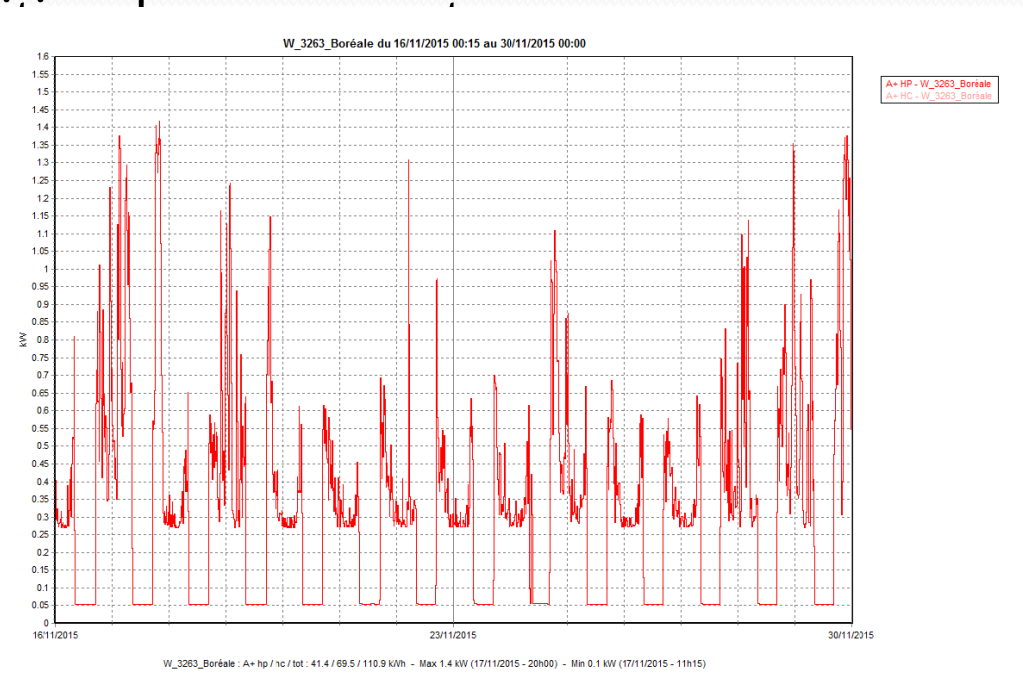
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- IV. Partners
- Contracting authority : Régie de Wavre
- Firme : Cofely Fabricom – GDF SUEZ
- Intégrator : CDEL
- Providers:
 - iGuzzini
 - Smartnodes

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- V. First Results

- Energy saving :
 - 73 % compared to old street light
 - 55 % compared to track lighting
- Power saving :
 - 60 to 80 %



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- VI. Experience Consortium
- REW actively participated in the development of management modules
 - Electric connection
 - Fixation
 - Design

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- VII. Interaction with Public Authorities
- Consistency actions of public authority of Ville de Wavre
 - General policy
 - Control of expenditure
 - Strategic development
 - Wellness of the citizen
 - Security and Mobility
 - Information et participation of the citizen in public life
 - Introduction of smart city concept
 - Territory Development
 - Durability

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- VIII. Specific Business – Futurs
- Additional sensors ; weather, air pollution, noise level
- Monitoring and control
 - Variable message road signs
 - Ghost driver detection
 - Danger signaling
 - Traffic jam
 - Mobility analysis
 - Waste management
 - Detect full bins
 - Predict bin usage
 - Send collecting truck only when and where needed

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- IX. Lessons learned

