



Martine De Regge

President of LUCI
Deputy Mayor of Ghent

Supporting and guiding cities

As new President of LUCI, I would like to first very warmly thank Councillor Allan Stewart, as well as his team in Glasgow, for their exceptional involvement in LUCI over the past two years.

The City of Glasgow has brought an important contribution to LUCI and we are looking forward to leading the network with the same energy and enthusiasm.

As my city, Ghent, has been engaged in the organisation of a light festival since 2011, I was particularly pleased to begin our mandate by participating in the last Lyon Light Festival.

In recent years, light festivals have indeed multiplied in cities throughout the world and I am pleased to see that LUCI is developing new spaces and tools to support and guide cities into this new and emerging world of light events.

This was the aim of the first edition of the "Lyon Light Festival Forum" organised by the City of Lyon and LUCI, which gave light festival organisers the opportunity to meet artists from all over the world.

It has also been the objective of LUCI's Culture Commission led by the City of Glasgow, which has created a light festival evaluation toolkit that can help cities measure the success of their events. And we will be looking forward to hearing from the Art and Light Commission, recently created by the City of Gothenburg, which will show that light art in the public sphere can also be permanent.

I look forward to continue working on these topics and many others with all the LUCI members. With the principles of the LUCI Charter on Urban Lighting as a guideline, we will be pleased to see these activities and events continue to raise awareness, inspire and support cities to move towards a more rational and sustainable use of light.

➤ Valladolid: unveiling heritage with innovative technology

The City of Valladolid (Spain) will be the host of the next LUCI City under Microscope (5 - 8 June 2013). Cristina Vidal, Councillor of Urban Planning at the City of Valladolid tells us more about the city...

■ What is the focus of Valladolid's lighting strategy?

Valladolid is a city known for its monumental heritage and its rich cultural life. The objective of our lighting strategy is to highlight these assets in an energy efficient and sustainable manner, while maximising the potential of new lighting techniques. With the "Rivers of Light" project, we have become a reference in light navigation combining tradition with modernity, using cutting-edge technology.

■ Tell us more about the award-winning "Rivers of Light".

The concept is based on the transformation of the historical River Esgueva into a river of light guiding people through the city streets in an interactive way. The objective is to provide tourists and citizens a route using light that reveals Valladolid's rich heritage. What is unique is that it combines innovative design with energy savings using the latest low consumption LED technology. In total, the project has resulted in energy savings of 44.5%.



■ What will be the highlights of the Valladolid CUM programme?

Besides our work with heritage lighting, participants will discover our pioneering projects, such as the Lumimotion intelligent lighting system, our new innovative LED luminaires and our GSM remote management tool. And of course, they will see the "Rivers of Light" route in person, and experience the architectural, cultural and gastronomic delights that Valladolid has to offer!

Programme and registrations at www.luciasociation.org

➤ The International Platform for Light Festivals gets off to a great start

The first edition of the International Platform for Light Festivals, which aimed to bring together light artists and light festival organisers to encourage international collaboration, was organised by the City of Lyon and LUCI in partnership with the Cluster Lumière on the 8th of December 2012.

Over 150 meetings were organised between the participating cities/festival organisers and light artists – a real success for this new initiative which involved several LUCI members, such as Josette Dahlin from the City of Helsingborg, host of the festival "Love and Light", who said *"This opportunity to meet artists in person is very effective, as we can share our ideas and find the right match for our festival."*

This initiative is part of the Lyon Light Festival Forum 2012, organised by the City of Lyon and LUCI, which also hosted a day of conferences on the two topics: "Building the identity of light festivals" and "Light festivals in the era of interactivity". The event, held from the 6th to the 8th of December 2012, brought together over 230 light festival professionals.



© City of Lyon, photo M. Djaoui

LUCI CALENDAR

MAY 2013

• 28 - 30

LumiVille trade fair -
Lyon (France)

JUNE 2013

• 5 - 8

LUCI City under Microscope -
Valladolid (Spain)

• 9 - 12

Guangzhou International
Lighting Exhibition -
Guangzhou (China)

SEPTEMBER 2013

• 18 - 21

LUCI City under Microscope -
Marseille (France)

OCTOBER 2013

• 17 - 19

Light in the City event -
Hasselt (Belgium)

• 30 Oct - 2 Nov

Professional Lighting Design
Convention - Copenhagen
(Denmark)

NOVEMBER 2013

• 13 - 17

LUCI Annual General Meeting -
Guangzhou (China)

➤ CIE centenary celebration

The CIE (International Commission on Illumination) will celebrate its one hundredth anniversary from the 12th to the 19th of April 2013 in Paris (France).

The celebrations will consist of a week of events including a two-day conference, a symposium on colour vision and a PhD workshop, as well as a gala dinner, at which LUCI will be present as partner association.

More information at
<http://paris2013.cie.co.at/>



➤ Sustainability at GILE 2013

LUCI will once again be present at the Guangzhou International Lighting Exhibition, taking place from the 9th to the 12th of June 2013 in Guangzhou (China).

This year, the fair's Lighting Design Gallery will display photos of international lighting design projects focused on sustainability, and will also feature a LUCI presentation on the topic.

More information at
<http://www.messefrankfurt.com.hk>

guangzhou international
lighting exhibition
广州国际照明展览会

➤ First "Light in the City" event this autumn

The first seminar of the "Light in the City" project, developed within the framework of the EU programme "Europe for Citizens", will be taking place in Hasselt (Belgium) from the 17th to the 19th of October 2013.

Municipal decision-makers, experts and companies in the lighting field, as well as citizens, will be invited to attend the event which will include conferences, educational workshops and a "Guerrilla Lighting" session.

Hasselt, a city of over 73 800 inhabitants, will showcase the architecture of its key areas in a

new light. The event will also include a light art session, during which lighting designers selected by an international panel of specialists will present their work Pecha Kucha style.

Besides Hasselt, the two year "Light in the City" project includes the cities of Jyväskylä (Finland), Eskilstuna (Sweden) and Tartu (Estonia), with LUCI as associated communication partner.

More information coming soon



➤ AGM Medellin 2012: new discoveries and new LUCI President

Over 130 city representatives and lighting professionals converged in Medellin (Colombia) from the 14th to the 18th of November 2012 for the LUCI Annual General Meeting. Full of learning, sharing, discovery, and new connections, the AGM 2012 was an event that encompassed the essence of all that is LUCI - a fitting way to mark 10 years of the network!

New governance

The General Assembly 2012 marked a new era in LUCI governance, with the City of Ghent (Belgium) taking over the LUCI Presidency from the City of Glasgow (UK). The annual renewal of the LUCI Executive Committee saw the election of three member cities to the LUCI EC - Eindhoven (The Netherlands), Glasgow (UK) and Leipzig (Germany). The City of Gothenburg (Sweden) was elected to be the new LUCI Vice-President and the City of Lyon (France) was elected as Treasurer.

A new culture of light

Besides conferences focusing on Medellin's use of light as a tool in its impressive urban transformation strategy, participants were treated to a special pre-inauguration of the city's famous "Alumbrado Navideno" Christmas lighting festival, the dates of which were specially advanced for LUCI delegates!



New networking opportunities

The Open Conference Sessions, a new initiative in 2012, reinforced the AGM as a true international forum for cities on urban lighting, with presentations by Guangzhou (China), Marseille (France), Seoul (Korea), Jyväskylä (Finland), Zacatecas (Mexico) and Santiago de Chile (Chile), amongst others.

New focuses for LUCI Commissions

The AGM marked the creation of two new LUCI Commissions: one on Light and Art, which will be led by the City of Gothenburg, and another on Light Festivals led by the City of Lyon. The event also saw current LUCI Commissions present their activities, reports and outputs of the past year, ensuring that participants went home with bags full of new resources and publications on urban lighting.

Download the AGM presentations in the LUCI members area



10th city.people.light award ceremony

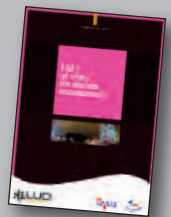
With its lighting project for the "Mur de l'Annonciade" combining landscape design, lighting innovation and public art, Lyon (France) was awarded the 1st prize of the cpl award. Stavanger (Norway) and Genk (Belgium) won the 2nd and 3rd prizes respectively. Two special mentions were also attributed to Taipei (Taiwan) and Moscow (Russia). Finally, through a vote open to the public, the People's Choice Award rewarding the most popular winning project of the last 10 years, went to Valladolid (Spain).

➤ Publications in 2012

The year 2012 saw the release of several publications, many of which were distributed at the AGM:

Light as a Tool for Tourism Development

Realised by Atout France (the national promotional agency linked to the French Ministry of Tourism) in partnership with LUCI, this book identifies key factors that determine how a lighting strategy can contribute to the touristic development of a destination.



PLUS Mainstream Guide

Produced within the framework of the EU INTERREG IVC PLUS project on sustainable urban lighting strategies, this document sees the 11 PLUS partner cities share their innovations, insights and new approaches to public lighting.

LUCI, Cities in a New Light

A special publication that marks LUCI's 10th anniversary, "LUCI, Cities in a New Light" brings together the cities and people that have built LUCI through the years.



➤ Gothenburg invites LUCI to reflect on light and art



The four cities of the Light and Art Commission met in Gothenburg on the 17th and 18th of January 2013, to discuss the objectives and steps forward for this newly created Commission. The group currently consists of the cities of Helsinki, Rotterdam and Ghent (with associated member Sacred Places), and is led by the City of Gothenburg.

It seeks to explore the issues surrounding art and light in the urban space, ultimately aiming to develop a tool box on the topic. The Commission plans to present its action plan to LUCI members later this year.

➤ EU Culture Capital Marseille to host next LUCI event

The City of Marseille (France) will be hosting the second City under Microscope event of the year, from the 18th to the 21st of September 2013.

France's second largest city, and this year's European Capital of Culture, will showcase its urban lighting strategy including how it has enhanced its many cultural and heritage sites as well as its public spaces. It will also demonstrate the role of lighting in large scale urban development projects, such as Euroméditerranée, a new waterfront district.

The city, which recently implemented a new lighting scheme, conceived by lighting designer Yann Kersalé, for its Old Port, will also address lighting maintenance issues unique to southern seaside climate conditions, such as dealing with the harsh sun and strong winds.

More information coming soon



➤ LUCI AGM 2013 in Guangzhou



The LUCI Annual General Meeting, the international forum for cities on urban lighting, will take place in the City of Guangzhou (China), from the 13th to the 17th of November 2013.

As host of this key event of the LUCI network, China's third largest city will also introduce AGM participants to a new culture in lighting. Home to the largest lighting trade fair in Asia, one of the leading LED manufacturing region in the world, and the new host of an annual light festival, Guangzhou will certainly have much to show LUCI members!

➤ LUCI Light Festival Evaluation Toolkit coming soon!

The Light Festival Evaluation Toolkit, currently being produced by the LUCI Culture Commission led by the City of Glasgow, will be available on the LUCI website this spring.

The toolkit, developed by Cambridge Policy Consultants and based on their report for the Commission on "The Economic and Cultural Benefits of Light Festivals", will bring together key resources (survey templates, statistic tools, case studies, etc.) that cities can use to evaluate the impact of their lighting events.

"We hope that this toolkit will serve as a valuable source of information and help LUCI cities that would like to better evaluate their lighting events," says Cathy Johnston from the Glasgow City Council.

More details on the toolkit coming soon

➤ Sustainable lighting in Tartu

Tartu, the second largest city in Estonia with a population of over 101 300 inhabitants, and home to the oldest university in the country, is one of LUCI's latest new members. *"The City of Tartu decided to join LUCI in order to be part of a professional and progressive network, combining skills and experiences in lighting worldwide,"* says Jaanus Tamm from the Department of Communal Services in Tartu.

The city has approximately 318 km of streets lit by over 11 000 lamps, and its lighting strategy aims to ensure a sustainable public lighting system focusing on saving energy and reducing maintenance costs.

The energy used for the public lighting system, being sourced from oil shale, has much more of a negative impact on the environment as compared to renewable fuels or even other fossil fuels – which is another reason why Tartu is so keen to economise on electrical energy.

"Technology is developing very fast, especially in the field of lighting, and it is almost impossible to test all the technologies ourselves. We would like to study the experience of other cities, and then use proven and effective solutions," explains J. Tamm. The city, which manages its lighting system through a GSM connection, has recently installed new economy HPS lamps which have reduced energy consumption by 20-25%.



© City of Tartu, Malev Toom

➤ Eskilstuna: a new identity for an industrial city



© City of Eskilstuna

Eskilstuna, a central Swedish town with approximately 97 700 inhabitants, is an industrial city in transition. The city is characterized by several transformation projects where industrial zones are converted to urban areas.

"The transformation of old industrial buildings, often situated in central locations, provides great opportunities for creating attractive urban spaces. We would like to use light as an important tool when we create these new places and give them a new identity," says Karin Ermegård, Landscape Architect with the City of Eskilstuna.

As a municipality with a distinct environment-friendly profile, one of the main goals of Eskilstuna's lighting plan is to save energy. The city, which is gradually switching to more energy efficient light sources, also sees this as a good opportunity to explore how public spaces and paths can be treated in a more sophisticated manner.

"Through LUCI, we want to get inspiration from other cities that work consciously with lighting, and learn from their experiences and strategic work," says K. Ermegård, speaking of Eskilstuna's desire to take advantage of new technological possibilities that could optimise the lighting of its sites and buildings.

➤ Agence ON explores light in all its dimensions

Agence ON, a lighting design agency created in 2003, aims to integrate and develop the nocturnal dimension of an architectural or urban planning project.

"We work with light as a material, in all its dimensions – technical, aesthetic, symbolic and social. To us, light is more than just an instrument for security or embellishment," explains Vincent Thiesson, the principal lighting designer of the agency.

The agency is currently developing the lighting scheme for the renewal of the harbour area in Tangiers (Morocco) and zones in Rennes and Rouen (France).

LOCATION: Paris, France

YEAR FOUNDED: 2003

MAIN ACTIVITY: lighting design

NUMBER OF EMPLOYEES: 7

WEBSITE: www.agence-on.com



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➤ OCUBO: interactive light installations



© ocubo.com

OCUBO is a lighting design group specialized in video mapping and interactive projections.

The agency, which has participated in over 15 light festivals worldwide, deals with content creation, 3D animations, illustrations, motion design, video mapping and interactive application development.

"We decided to join LUCI because it is a vital catalyst in the lighting field and we greatly enjoyed our experience at the LUCI conferences," says Carole Purnelle, co-founder of OCUBO, fresh from her experience at the Lyon Light Festival Forum last year. The agency is currently preparing for the Festival LUMINA in Cascais (Portugal) in September 2013.

LOCATION: Sintra, Portugal

YEAR FOUNDED: 2004

MAIN ACTIVITY: video mapping and interactive projections

NUMBER OF EMPLOYEES: 2

WEBSITE: www.ocubo.com

➤ Experimental light art with Philippe Morvan

Visual artist and scenographer by origin, Lyon based artist Philippe Morvan has been creating works of light art since 2009. He aims to create an artistic and experimental agency centred on light and sound. *"The universality of these two mediums makes it possible to create shows and installation pieces all around the world,"* he explains.

The light artist, whose installations have featured in several past editions of the Lyon Light Festival, recently participated in the LUX festival in the Finnish capital Helsinki.

"LUCI provides the opportunity to explore the inter-relationship between city and artist. This will be, I hope, a source of learning for me, especially regarding the particular needs of art in the public space," he states.



© Roland Gouy-Paillier

LOCATION: Lyon, France

YEAR FOUNDED: 2007

MAIN ACTIVITY: creating light art

WEBSITE: www.philippemorvan.com

↘ Light art silo marks the Helsinki landscape

Last winter, the City of Helsinki (Finland) inaugurated a new interactive permanent lighting scheme for one of the oil silos, Silo 468, of the former oil harbour of Kruunuvuorenranta, a regeneration area.

The 1 250 white LEDs on the surface of the silo flicker and sway with movable steel mirrors which respond to Helsinki's prevailing winds, generating the silo's infinitely variable light patterns in real time.

The silo light art, designed by lighting designer Tapio Rosenius of Lighting Design Collective, is a reference to Kruunuvuorenranta's history as an oil harbour, and will serve as a permanent waterfront landmark for the city.



© Tuomas Uusheimo

↘ Toulouse re-illuminates its streets

The City of Toulouse (France) has undertaken an extensive renovation of over 65 000 fittings of its public lighting network. Roughly 16 000 roadway lamps have already been replaced by GE double burner HPS (High Pressure Sodium) lamps, and 3 200 lamps in pedestrian zones by metal halide sources. Joel Lavergne, Manager of Public Lighting in Toulouse, tells us more about this project...

■ What did the City of Toulouse seek to accomplish with this lighting renewal?

The lighting department of the City of Toulouse is constantly seeking to optimise its lighting network, in terms of its global cost, management, technology and organisation: how can we do better with the same limited amount of money? How can we optimise the everyday management of maintenance to guarantee the necessary lighting levels and standards while streamlining finances, techniques and personnel?



© GE

Our overall approach is one of anticipation, not only in terms of the sources of light, but also in terms of the lifetime of monitoring equipment and the organisation of teams around maintenance imperatives.

■ What are the advantages of this renewal?

The double burner HPS lamps, that we chose for roadway lights in this new lighting scheme achieve a luminous efficiency of up to 150 lumens/watt and have improved maintenance of luminous flux.

These types of lamps have been tried and tested in the city for several years and most importantly, they last twice as long as a single burner lamp.

The use of this lamp limits the risk of breakdowns or failures. It enables us to do better with the same amount of money by reducing the source of potential problems.

The virtuous circle of maintenance is thus reinforced: the use of more reliable sources and equipment creates more time for preventive maintenance and replacement of aging equipment, which in turn reduces the risk of unforeseen failure, often a source of customer dissatisfaction and a loss of time.

■ What is your strategy on source technologies?

The point is to optimise the use of light sources in relation to their capacity and performance. In functional streets for automobiles, a functional lighting system that is optimised in terms of cost and expectations can be used.

This is why we chose HPS lamps, which have long lifetimes and which are perfected in their design and industrial fabrication. This ensures that we guarantee the quality of service rendered, an essential approach when it involves the management of over 70 000 lamps on a daily basis!

We also try to make the most of technical and industrial advances in urban lighting applications. For pedestrianized streets and spaces, for example, the added value of the ambience and quality of light offered by LEDs can be preferred.

➤ A new landmark for Oslo

The Holmenkollen ski jump in Oslo (Norway), considered the world's third most famous sports arena and one of the first designer ski jumps in the world, has received a new lighting scheme. *"In the Oslo panorama the characteristic profile of the Holmenkollen hill is a clear icon, and the everyday lighting of the ski jump reflects this function as a landmark of the Norwegian capital,"* says Tom Kristoffersen, Head of Lighting in Oslo.

The lighting scheme, designed by Norconsult, focuses on the subtle accent lighting of the ski jump hill and its surrounding areas. In daylight the ski jump profile appears to be either milky white or a sharp shining silhouette, depending on the conditions of the natural light.

In the evening hours, the facade of the Holmenkollen in-run is lit from within using LED fixtures mounted in between the structure and the steel mesh to create a glowing profile. The underside of the landing slope is lit with warmer lighting to emphasize the crisp cold lighting of the ski jump profile.



© Daniel Mikkelsen/ EnergyOptimal AS

➤ New LED lighting solution for Lyon's unique topography

The City of Lyon (France) recently inaugurated a new lighting system for a pedestrian passage of stairs that winds up the eastern slopes of the city's Croix Rousse hill. Patrice Eschassériaux and Aurélien de Fursac from Coté Lumière, the lighting design agency responsible for the project, tell us more:



© Coté Lumière

■ What were the objectives for the lighting scheme of the Montée du Boulevard?

We wanted the lighting scheme to take into account the various angles and lines of vision of the stairway, in order to ensure perfect nocturnal visibility. We also wanted to respect the visual comfort of the pedestrian and avoid all sorts of discomforts such as glare or high contrasts. It was also important to find a solution that respected the environment and limited pollution while simultaneously taking into account the current lighting norms and standards.

■ What solution did you implement?

The new lighting consists of 26 LED modules installed on a cable that traces the length of the stairway. The colour temperature is 3 500 K with gradual changes in luminous intensity. The LED linear projector chosen for the project has a very long life, facilitates maintenance and minimises glare. Its minimal mass ensures that the cable, which is attached to the walls with chemical rawlplugs, can hold the projector's weight without any problems.

■ Why did you choose to use a cable?

The cable symbolizes a thread of silk to represent the past of the Croix Rousse hill which is famous for its 19th century silk factories. On a more practical note, we chose to use a cable instead of masts or other supports in order to ensure continuous illumination, unimpeded by obstacles throughout the passage. Furthermore, besides the fact that it is discrete, the height of the cable (4 to 6 metres) facilitates maintenance and prevents vandalism.

↘ Interactivity and Light

Cities are increasingly experimenting with interactivity as a way to enable spectators to become active participants in a light festival or to better appropriate permanent light art. However, although interactivity can bring added value to light in the city, it involves numerous artistic, technical and logistic challenges – many of which were discussed during the Lyon Light Festival Forum Conferences on the 7th of December 2012...



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Carole Purnelle and Nuno Maya from OCUBO, interactive lighting specialists and speakers at the conferences, tell us more...

■ What are the different ways to incorporate an interactive aspect in a light installation?

From experience, we can identify a few different ways:

- participation without an interface (people participate with their body, their movements, their presence);
- participation with an interface (people participate through technological equipment, typically a touch screen);
- participation via an object specially created for the installation;
- “deferred” participation (people participate prior to the final installation, either during its conception, or in a film for the installation);

↘ Light therapy in Montreal

Montreal’s Quartier des Spectacles, which innovatively uses light to visually express its identity as the cultural city centre, recently featured the interactive light art installation, “Iceberg” as part of its “Light Therapy” programme.

Created by Atomic3 and Appareil Architecture in collaboration with Jean-Sebastien Coté and Philippe Jean, the installation tells the story of an iceberg. It consists of a series of illuminated metallic arches that each produce a particular sound. Arranged as a tunnel, the arches beckon visitors to enter, listen to and play this giant luminous organ.



© Martine Doyon, Partenariat du Quartier des Spectacles

- physical participation (as opposed to digital) through direct painting, candles, etc.

■ What are some of the challenges related to interactive light projects?

The principal challenge is operational, and related to the time spent by people interacting with the installation on-site. The position of an interactive installation must be carefully chosen according to the “flow” of people, i.e. the estimated time of participation of each person or group of people.

“Double vision” is also necessary – i.e. the non-participating public must see both, the outcome projected, as well as the people who interact. Another issue to consider is that the installation must be interesting even when no one is interacting with it. It is also important to give the audience access to the installation after the event, via the internet for example, to review or share their creation.

■ What are the different challenges linked to the creation of permanent interactive light art?

The specific challenge of a permanent installation is technical. It must be designed to last and require minimal handling. As it will be operated by the local city department team and not by those who designed it, the program should be user-friendly.

↘ Sydney: interactive permanent lighting on a grand scale

Sydney (Australia) is the home of the world’s largest permanent interactive lighting display, “Luminous”.

The 150 m wide, 4-storey tall art installation, conceived by lighting designer Bruce Ramus, wires the window of a building in Darling Harbour with 557 LED lights to create a 207x4 resolution display with which people can interact.

Visitors can play games on the facade or paint with light via a touch-screen. They can also interact through their smartphone, and even design a light show from home via the internet!

Download the presentations made during the Lyon Light Festival Forum Conference on “Light Festivals in the Era of Interactivity” from the LUCI members area.

➤ New lighting for the City of Phnom Penh

The Cambodian capital city Phnom Penh will be undergoing a street lighting restructuring focusing on reducing energy consumption, heritage enhancement and innovation. It will involve renovation and extension operations totalling about 10 000 lighting points.

The new system will facilitate daily maintenance and allow the city to optimise its lighting and manage its development. Phnom Penh aims to have 50% energy savings per luminous point by using high performance equipment.

The first year will also see the implementation of a decorative lighting programme for the city, with new lighting schemes for some twenty monuments and ancient or contemporary sites including the prestigious Central Market, the Independence Monument, the Royal Palace and the National Assembly Building.

The 20-year restructuring contract, signed with Citelum, has a total value of € 80 million. The project will include aid from the French Development Agency (AFD) which will be financing 65% of the investment.



© Citelum

➤ Ghent, Valença and Los Angeles win the Auroralia award 2012



© Auroralia

The winners of the Schröder / LUCI Auroralia award 2012 for sustainable urban lighting initiatives were announced at the much-awaited Auroralia award ceremony during the Lyon Light Festival on the 7th of December 2012.

The City of Ghent (Belgium) won the first prize for its "Rational Use of Energy" project for a targeted and gradual replacement of its lighting installations. Judges praised the city for reconciling strict financial management with high targets in reducing energy consumption and CO₂ emissions (see page 11 for more information on the winning project).

Valença (Portugal) won second prize for its urban renewal project which has transformed nocturnal life in the town while reducing its energy consumption by 69% and CO₂ emissions by over 28.5 tonnes per year.

The third prize went to the City of Los Angeles (U.S.A.) for its ambitious LED replacement programme which has seen the installation of over 100 000 LED luminaires, each generating 50% energy savings compared to the luminaires they have replaced.

The City of Buin (Chile) received a special mention for its new lighting plan which has reduced CO₂ emissions by 80% and which pays specific attention to the preservation of local fauna.

The 2012 edition of the Auroralia award, with 16 projects as interesting as they were varied in their subject and scope, confirmed a strong commitment from cities and towns for a rational use of natural resources.

More information on the winners at www.auroralia.org



© Auroralia

↘ The Rational Use of Energy plan in Ghent (Belgium)

The City of Ghent won the Auroralia award first prize for its Rational Use of Energy (RUE) plan aiming to reduce the energy used in the public lighting system. Jo De Coninck from the Department of Urban Planning in the City of Ghent tells us more...

“Better organising and changing systems”

■ What was the context of the project?

In 1998-2000 the City of Ghent developed the Light Plan I, a comprehensive lighting strategy for the city centre, which it has been gradually implementing ever since.

As from November 2009 onwards there is a new Light Plan for the entire city, Light Plan II, which illuminates the suburbs as well. In this, besides the emphasis on good lighting, the Ghent City Council also stressed the importance of a rational use of energy (RUE), and thus energy savings and cost reduction.

The long term objective is to reduce CO₂ emissions and total energy cost for the City of Ghent. The objective for 2020 aims at a reduction of 20% which would lead to a decrease of 3 685 279 kWh/year.

■ What is the plan of action?

One of the main actions under this plan consists of replacing all the remaining mercury discharge lamps as according to European obligations. We also lower the average consumption of lamps to one step down and a minimum of 50W.

The third major aspect includes reconstructing (as opposed to renewing) light fittings with replacement by electronic ballasts as a first step towards dimming and replacing standard electronics and lamps.

■ What results have you had?

We have exceeded our initial objectives with total savings of 3 837 683 kWh, which leads to a total reduction of 1 112 928 tonnes of CO₂/year. Moreover, once the dimming of the lights in the city becomes fully operational, an additional energy saving of over 20% is feasible.

The uniform improved performance of the equipment and the adaptation to warm white lighting in most parts of the territory does not only meet visibility and safety standards but also improves the lighting ambience with a lower energy use than before.

The numbers speak for themselves: the objectives were reached up to a level of 110% with only 85.25% of the available budget invested, with a stunning return on investment that will be lower than 4.56 years.

The RUE project 2010-2012 has proved that energy efficiency is not a simple matter of using LED lights and high tech sensors, but more of well organising and changing systems.



© City of Ghent

IDENTITY CHIP

Implementation

Project launch date: 2010

Duration of the work: 3 years

Stakeholders

Contracting authority: City of Ghent

Project manager: City of Ghent

Lighting design: Brigitte Vandenberghe (Project Manager) and Eric Himpens (EH Consult) - implemented according to specifications of the Light Plan II

Manufacturers: Schröder / Indal

Installation: EANDIS Schelde-Lieve

Maintenance: EANDIS Schelde-Lieve

Budget

Total cost: € 3 400 000.00

Gross net investment: € 3 005 713.96

Net investment: € 2 898 505.15

Technical (for the 14 sub-projects)

Amount of fittings: 11 689

Reconverted fittings: 6 271

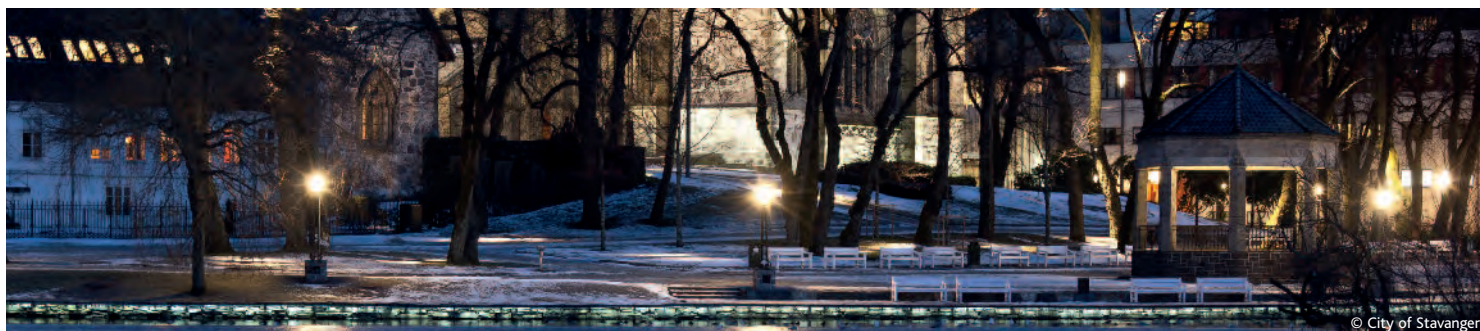
New fittings: 4 821

Re-used fittings: 99

Power gains: 958.30 kWh

Total energy savings: 3 837 683.00 kWh

Find this experience and many others in the **best practice database** at www.luciassociation.org/plus



Created in 2002 at the initiative of the City of Lyon, LUCI (Lighting Urban Community International) is an international network of cities on urban lighting. Through the organisation of international events and conferences, and its involvement in various lighting projects and research, LUCI creates spaces for exchange of knowledge and good practices in urban lighting.



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