



Councillor

ALLAN STEWART

Deputy Lord Provost of Glasgow
President of LUCI Association

ASSESSING AND EVALUATING LIGHTING POLICIES

With a record number of participants from all over the world and more than 20 conference sessions on various topics related to urban lighting, the LUCI Annual General Meeting 2011 in Gothenburg constituted once again an exceptional forum of discussion and exchange.

During the event, and especially the Commission meetings, many discussions revolved around the need to assess and to evaluate public lighting strategies, events and technologies, as well as the methods that could be used to do so.

In a difficult economic climate with tightened budgets, supporting and justifying the organization of lighting events in particular has become a real necessity for cities. Although formal impact assessments are still rare, the Culture Commission's report on The Economic and Cultural Benefits of Light Festivals showed that many cities are currently developing indicators to evidence the positive impacts of light events.

These initiatives are positive not only because they can encourage financial backing, but also because they can raise decision makers' awareness on the wide range of positive impacts light events can generate beyond immediate economic benefits: social well-being, pride and identity of citizens, employment, media coverage, tourism during off-season periods...

The necessity to evaluate and assess is also crucial for permanent lighting issues, where strategic choices have to be made by cities on new technologies as well as on the direction given to their lighting master plans.

Gathering feedback and collecting information from cities on their experiences is therefore of crucial importance, and a major focus of LUCI activities: LUCI is currently participating in the elaboration of the EU Green paper on SSL, and will soon launch, in the framework of its Charter on Urban Lighting Commission, a survey on sustainable public lighting strategies.

I can only encourage LUCI members to involve themselves in such initiatives in order to make their voices heard, and to build tools that help cities progress towards a better and more sustainable use of light.

➤ Eindhoven showcases its vision of light at the City under Microscope

Eindhoven (The Netherlands) is the host of the next LUCI City under Microscope from 14th to 17th March 2012. Rik van Stiphout, Program Manager Light, City of Eindhoven tells us more:

■ What is unique about Eindhoven's approach to lighting?

Based on its "Light On" vision, Eindhoven, The Netherlands' City of Light, started breaking ambitious new ground in urban lighting since 2007. Innovation plays a crucial role, and Eindhoven is keen to view the city as a living laboratory. Sustainability, creativity, and precise communication are vital to the realization of these objectives.

■ What will be the highlights of this City under Microscope?

Eindhoven has a reputation as a breeding ground for high-quality technology. Many of our research projects and inventions come about through close cooperation between industry, science and local government. This event will highlight new living labs in the city as well as the implementation strategy "Light-S" for the Strijp-S area. The search for Eindhoven's future lighting strategy on the basis of successful projects from our Light Program will also be a focus of discussion.

■ What are some of the innovations that you are experimenting with?

The municipality is very aware of the need for an interactive society. The city, the Eindhoven University of Technology and private associates are very much involved in developing lighting solutions to improve daily nightlife. Living labs such as "Achtse Barrier" and the experimental projects of "Light-S" all contribute to answering questions such as "How interactive can public lighting be?" and "Can we personalize public lighting?"



■ Could you tell us more about the city's temporary lighting initiatives and its marketing strategy?

The primary aim of "Light On" (2007) was to define the significance of light for the identity and image of Eindhoven. The focus is on the (visual) value of lighting for the identity of the city as "City of Light". We are producing distinctive experiences with light such as the historical Route of Lights (*Lichtjesroute*), the empirical *STRP festival* and *GLOW* in order to emphasize this. The objective is to develop the Eindhoven brand with great attention to design, technology and knowledge, the core qualities of the Eindhoven Region. In late 2011, the city marketing organization rebranded as "Eindhoven365" started to further build the city marketing.

➤ Highlights of the AGM 2011 in Gothenburg

The City of Gothenburg gave a warm welcome to the record 150 participants from over 35 cities that came together for the LUCI Annual General Meeting 2011 from the 16th to the 19th of November 2011.

Through a series of conference sessions on Gothenburg addressing issues such as the importance of natural light in architecture and public spaces, and the inclusion of children in the urban planning process, the AGM gave participants a unique insight into lighting from a Scandinavian perspective. Participants also particularly appreciated the visit to Vastra Eriksberg, the cpl award-winning lighting project.

As always, the LUCI AGM was also an opportunity to exchange information and experiences, especially during the speed networking session where 11 LUCI members (Guangzhou, Medellin, Gothenburg, Geneva, Jyväskylä, Taxco de Alarcón, Eindhoven, Varna, Rotterdam, Cluster Lumière and the Danish Lighting Innovation Network) presented their various lighting projects.

Other highlights included the presentation of the Culture Commission's final report on the benefits of light festivals (see page 7), and the city.people.light award ceremony and gala dinner (see page 6).



©Tommy Holl, City of Gothenburg

New LUCI Executive Committee members

This AGM was also marked by the renewal of one third of the LUCI Executive Committee with Seoul (South Korea), Gothenburg (Sweden) and Lyon (France) elected to be the city members joining the EC.

Go to the LUCI members' area to download the presentations made at the AGM.

LUCI CALENDAR

MARCH 2012

• 14 - 17

LUCI City under Microscope - Eindhoven (The Netherlands)

APRIL 2012

• 18

LUCI at Light+Building trade fair - Frankfurt (Germany)

JUNE 2012

• 5 - 7

CapUrba (formerly LumiVille) trade fair - Lyon (France)

• 9 - 12

Guangzhou International Lighting Exhibition - Guangzhou (China)

• 18 - 22

European Sustainable Energy Week including PLUS conference on energy efficiency in lighting - Brussels (Belgium)

SEPTEMBER 2012

• 19 - 22

LUCI City under Microscope - Jyväskylä (Finland)

NOVEMBER 2012

• 14 - 18

LUCI Annual General Meeting - Medellin (Colombia)

DECEMBER 2012

• 6 - 9

Lyon Light Festival - Lyon (France)

➤ LUCI guided tour at Light+Building 2012

LUCI members will be treated to a guided tour of the Light+Building trade fair in Frankfurt (Germany) on the 18th of April 2012. The tour, organised by LUCI in collaboration with Messe-Frankfurt, will take participants to the LUCI associated member stands that are amongst the 2 100 exhibitors of the fair.

Light+Building, the world's largest trade fair for lighting and intelligent buildings with over 183 000 visitors in its last edition, will take place from the 15th to the 20th of April 2012 with a main focus on energy efficiency.

LUCI members will also be offered a tour of the Luminale light festival which takes place parallel to Light+Building and transforms Frankfurt into a stage for innovative lighting design and cultural concepts.

light+building

Register for the guided tour at www.luciassociation.org

Deadline: 6 April 2012

Contact luci@luciassociation.org for more information on LUCI at Light+Building

➤ LUCI at GILE 2012 lighting design gallery

For the fourth year in a row, LUCI will be present at the Lighting Design Gallery at the Guangzhou International Lighting Exhibition (GILE) 2012 held from the 9th to the 12th of June 2012.

The 17th edition of GILE, one of the world's most comprehensive lighting industry events, will cover 220 000 m² at the Guangzhou international lighting exhibition 广州国际照明展览会 China Import and Export Fair Complex in Guangzhou, China.

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

➤ Smart lighting at CapUrba 2012

CapUrba, the new city planning and urban project trade fair in Lyon (France), will take place from the 5th to the 7th of June 2012 and will include the "Lumi Technologies and Smart Lighting" exhibition (formerly LumiVille), focusing on new technologies in outdoor lighting.

The fair, which offers professionals and representatives of municipal authorities the tools to develop urban spaces, will also include a conference programme in which LUCI will be involved.



More information at www.capurba.com

The LUCI office welcomes a new colleague!

LUCI is pleased to welcome Albane Tabaka who just joined the LUCI team in Lyon as the new Project Manager on the 5th of March 2012. She will be replacing Raphaëlle Leclerc, who left her position at LUCI on the 31st of January 2012.

↘ Jyväskylä under a microscope this autumn

The 2009 city.people.light award-winning city, Jyväskylä (Finland), is the host of the second LUCI City under Microscope of the year, to be held on the 19th to 22nd September 2012.

The event programme will include presentations on the development of Jyväskylä's recently updated lighting master plan, its Light Centre concept (a place for experiences created by light for citizens and tourists), the intelligent lighting control project in the Aijalanranta housing fair area, as well as a series of mini-workshops and round table sessions. Famous for its many Alvar Aalto designed structures, a visit to Jyväskylä will naturally also include a look at the role of lighting in Alvar Aalto architecture.

This City under Microscope will be part of Jyväskylä's 7th annual "City of Light" event, a ten day experience that also includes a national one day seminar on "Light in Green Areas" for lighting designers. City under Microscope participants will have the opportunity to attend the spectacular opening ceremony and celebration that marks the kickoff of the event!

Go to www.luciassociation.org for more information



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↘ From Scandinavia to South America - get ready for the LUCI AGM 2012 in Medellin

The City of Medellin in Colombia will be the host of the next LUCI Annual General Meeting to be held from the 14th to the 18th of November 2012. AGM participants can look forward to learning more about Medellin's lighting masterplan as well as its renowned "Urban Light Celebration" Christmas lighting festival. What's more, Medellin has just been listed by the National Geographic as one of the top 10 places to see holiday lights!

More information coming soon on the LUCI website



©epm

↘ Call for applications for 3rd LightLinks project

Cities are invited to send in their candidatures for the 3rd LightLinks project to be launched in November 2012.

The LightLinks initiative, first launched by LUCI and Thorn in 2007, aims to promote international solidarity by supporting the cooperation between cities from developed and developing countries on urban lighting projects.



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Lighting cooperation project proposals from cities must address issues such as the concrete benefits foreseen for the local population; the sharing and transfer of knowledge between two cities; sustainability and respect for the environment; and the long-term viability of the project.



The deadline for applications is 30th June 2012.

The winning city partnership, will be announced at the LUCI Annual General Meeting in Medellin (Colombia) in November 2012.

How to apply

- Download the application form at www.luciassociation.org
- Submit the complete application package to luci@luciassociation.org
- Deadline for applications: 30th June 2012

Contact luci@luciassociation.org if you have any questions

➤ Sustainable lighting for the eternal city of Rome



©Barbara Roppo & Broken Lens

The Italian capital Rome, the latest city to join LUCI, is committed to the sustainable use of light. *"Roma Capitale's membership in LUCI is motivated by our desire to become part of a network of cities which can share their experience and knowledge within the sector of urban sustainability,"* declares Federico Mollicone, Municipal Councillor and President of the Commission on Culture, Sport and Youth of the City of Rome.

Some of Rome's lighting priorities include improving security and developing LED technology. The city's lighting plan, launched in 2010, envisages the creation of 60 000 new lighting points and an extensive retrofit program which will replace about 100 000 conventional lamps with LED lamps. By the end of 2011, approximately 3 500 LED lighting points will be installed, and by 2020, about 3 000 streets in Rome will be lit using LED technology.

The city recently hosted its annual Carnevale di Roma (11 - 21 February 2012) which included architectural video projections using 3D mapping techniques. It has also launched a series of video projections on some of the most popular monuments of the city in partnership with Acea and Zètema Progetto Cultura.

➤ Budotechnika - a new light on Polish design

Founded in 1992, the Polish design studio, Budotechnika, deals with complex design services, construction expertise and technical supervision.

"We have joined LUCI because our company would like to deepen its knowledge regarding the aesthetic, economic and ecological aspects of illumination," explains Magdalena Zienowicz, a designer at Budotechnika and a specialist in landscape illumination. *"Some of our most important projects in 2011 included the Holiday Inn Hotel in Walbrzych (Poland) and 3 commercial centres around the country."*

Known mainly for its projects on industrial and public facilities, the company's range of activities has extended to landscape design as well as urban renewal and regeneration projects in recent years.

■ BUDOTECHNIKA

LOCATION: Wrocław, Poland

YEAR FOUNDED: 1992

MAIN ACTIVITY: Design studio

NUMBER OF EMPLOYEES: 8

➤ A little Winter Magic for Amsterdam

The Winter Magic Amsterdam Foundation, one of LUCI's latest associated members, is the organizer of the Dutch capital's annual festival of light and water.

The "Winter Magic Amsterdam" festival is held every year in December and centres on the Amstel river, with buildings and bridges such as the Amsterdam Music Theatre, the ancient wooden "skinny bridge" (Magere Brug) and the Amstelsluis locks, specially illuminated for the event. For the 2012 edition, projections, interactive illuminations and special light objects will also be displayed on the quays, forming a "Boulevard of Light".

"Winter Magic Amsterdam joined LUCI to share its love for lighting up the public space of World Heritage cities," explains Felix Guttmann, Chairman of the Board at Winter Magic Amsterdam. *"We aim to create a festival of light and water in the historic context of the World Heritage city of Amsterdam that is embraced by inhabitants and visitors alike."*

Festival highlights also include the Christmas Canal Parade where decorated barges and boats sail along the Prinsengracht canal and Amstel river.

Go to www.wintermagicamsterdam.com for more information



©Alphons Nieuwenhuis for Winter Magic Amsterdam

■ WINTER MAGIC AMSTERDAM

LOCATION: Amsterdam, The Netherlands

YEAR FOUNDED: 2011

MAIN ACTIVITY: light festival production

NUMBER OF EMPLOYEES: 2

Arraiolos, Nivelles and St Helens win the Auroralia Award 2011

The LUCI programme for the Lyon Light Festival 2011 started off with a bang on the 8th of December with the ceremony announcing the winners of the Schröder/LUCI Auroralia award 2011 which recognizes cities for their sustainable lighting initiatives.

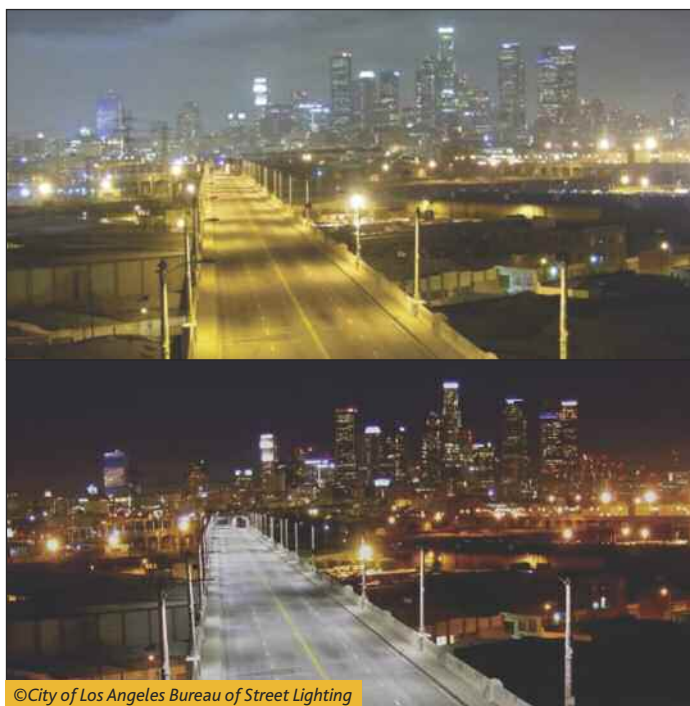
The first prize went to Arraiolos in Portugal for its LED lighting project in the historical city centre (see page 11), the second prize was awarded to Nivelles, Belgium for its "Lighting Heart" for the main city square, and the third prize to St. Helens, UK for the new lighting plan of the area around St Helen's College. The City of Remchingen in Germany was awarded a Special Mention for its energy efficiency programme entitled "1000 LED-luminaires for Remchingen".

The winners were selected from amongst a total of 19 entries by a jury panel composed of representatives from the press specializing in urban planning, environment and lighting design.

More information at <http://www.auroralia.org/>



Los Angeles moves forward with its LED roadway conversion project



The City of Los Angeles gave an update on its LED street lighting retrofit programme at the ForumLED Europe conference on the 7th of December 2011 in the session, "How to use LED in public lighting and for which results", co-organized and chaired by LUCI.

LA, the second largest city in the USA with over 7 200 km of illuminated streets, aims to reduce energy consumption by 40% through the conversion of 140 000 streetlights to LED and the installation of a remote monitoring system over a period of 5 years. The project, implemented by the Los Angeles Bureau of Street Lighting, was launched in 2009, with a total budget of \$57 million.

"One of the key aspects of the project is our flexibility in product selection over the 5-year period, which is vital given the rapid evolution of LED technology," explains Ed Ebrahimian, Director of Public Lighting in LA. Tests are conducted every six months to re-evaluate the LED market, re-draft technical specifications, and purchase equipment. To date, the Bureau has conducted five phases of testing and evaluation of LED products and has also conducted surveys among residents for feedback on the new LED fixtures.

Three years into the programme with 54 469 fixtures installed and the city has already recorded annual energy savings of \$2 038 169!

More information at www.bsl.lacity.org/

Lighting makeover for London's Tower Bridge

The fine architectural details of London's iconic Tower Bridge will be clearly visible at night for the first time in its 118 year history thanks to a project that will see more than 2 km of architectural LED lighting installed on the bridge's stone and metal work.

The project forms a key part of a major lighting makeover for the bridge in preparation for the London Olympic Games in 2012. It will also see the installation of controls that enable the mood of the lighting to be changed to suit different occasions. A total of 2 240 m of flexible LED lights that can be moulded to fit the shape of the tower's architectural features are to be installed, highlighting its intricate structural details. *"This is another lasting legacy stemming from the Games which will benefit the city for decades,"* said Boris Johnson, Mayor of London. The LED solution, developed by GE Lighting for the new lighting system designed by Citelum, will help cut energy consumption by as much as 40%.



↘ “Light of Rebirth” for the City of Dujiangyan



The Chinese city of Dujiangyan, classified as a UNESCO World Heritage site for its ancient water irrigation system but devastated by a major earthquake in 2008, has now been reborn through light.

The lighting scheme has given new life to the city, transforming its riversides into a recreational area for the local population and drawing back the tourists that visit the city's canal system.

The new lighting concept for the city, designed by the ZHONGTAI Lighting Group in collaboration with Concepto, is inspired by the historical and religious concept of Taoism and emphasizes the identity and richness of the city's unique landscape. The gold and jade lights chosen as the main colors for the project highlight the harmonious relation between man and nature and help integrate the city's Taoist Temples into the natural background.

↘ Chartres en Lumières 2012

The 10th edition of the “Chartres en Lumières” light festival, held from the 21st of April to the 15th of September 2012, will adorn 29 monuments in the Chartres city centre.

This year, the illumination of the Royal Portal of the Chartres Cathedral will be the result of an open call for projects launched by the municipality. “Chartres en Lumières has been a great success for the past ten years, but it is important to keep renewing the festival while at the same time preserving its high quality,” says Laurent Lhuillery, Deputy Mayor of Chartres.

This year's edition of the festival will also feature new designs for the Apostrophe Médiathèque, the Marceau square, and the North Portal of the Cathedral.



↘ Valladolid, Rotterdam and Kanazawa win cpl 2011 awards

The winners of the 9th annual Philips/LUCI city.people.light award were announced in Gothenburg during the LUCI AGM 2011 on the 17th of November. Three cities won the top prizes for incorporating the notions of “city”, “people” and “light” through innovative lighting solutions that re-humanize the urban landscape.



1st prize: Valladolid (Spain)

The “Rivers of Light” project, designed by Lara Elbaz and Rafael Galleago, connects different areas of the centre of Valladolid through light, creating a new night vision of the city, positively affecting citizens and tourists alike.

2nd prize: Rotterdam (The Netherlands)

The “Broken Light” project, designed by Rudolph Teunissen, used innovative lighting to revitalize the neglected street of Atjehstraat which now contributes to the neighbourhood's social, cultural and economic development.

3rd Prize: Kanazawa (Japan)

The project, designed by Reiko Chikada Lighting Design Inc., creates a lighting sequence that represents the history and culture of Kanazawa, a 400 year-old castle town, enabling residents and visitors to share the historical and cultural experience of the city.

Special Mention: Le Havre (France)

The lighting project, “The Wave” by Yann Kersalé generates a completely different perspective of Le Havre's breakwater during calm periods and during stormy weather to reflect the changing moods of the sea.

More information on the winning projects at www.luciassociation.org/citypeoplelight.html

Call for applications cpl 2012

Cities are invited to send in their entries for the 10th edition of the city.people.light award.

The contest is open to permanent urban lighting projects that have been completed less than two years prior to entry.

Deadline for entries is **30th July 2012**.

The three winners (the first prize being a trophy and a cheque for €10 000) will be announced at the cpl award ceremony at the LUCI Annual General Meeting 2012 in Medellin, Colombia this November.

Download the brochure on the LUCI website

↘ The Economic Benefits of Lighting Festivals

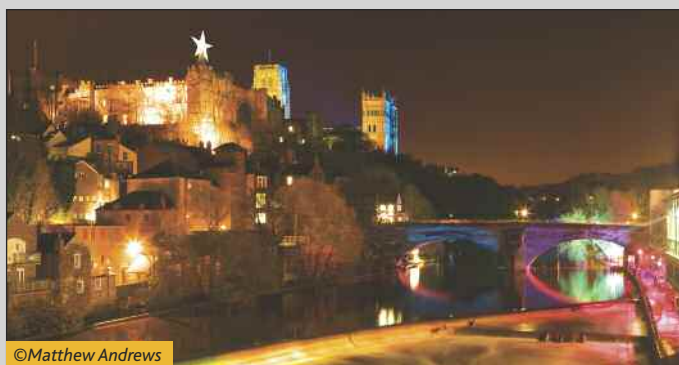
Even though light festivals seem to have a positive impact on host cities, it is often difficult to gather concrete evidence that demonstrates their benefits. This issue was taken up by the LUCI Culture Commission, led by the City of Glasgow, which presented its report on *The Economic and Cultural Benefits of Light Festivals at the LUCI Annual General Meeting 2011 in Gothenburg last November.*

Light festivals are commonly considered to have a positive impact on a city, a perception that has been strengthened by the rising number of lighting events around the world. But in these times of financial crisis, cities are increasingly required to justify their expenditure on such events. *"The Culture Commission has discussed and debated*

this question for many years and I was extremely pleased that we were able to engage consultants to undertake this research project," states Councillor Allan Stewart, Deputy Lord Provost of Glasgow and President of LUCI.

Through contacts with 26 cities hosting over 30 light events and case studies of 10 lighting festivals from around the world, the report takes a detailed look at the qualitative and quantitative evaluation tools that cities can use to demonstrate the positive impacts of lighting festivals, and highlights innovative methods and good practices.

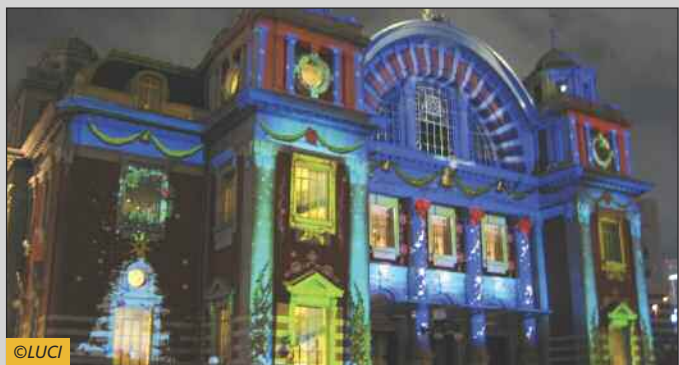
The report, drafted by the British consultancy firm, Cambridge Policy Consultants, concludes that while evaluation methods vary from city to city, light festivals have an overall positive effect on host cities.



©Matthew Andrews

The report case studies:

- 1 - Chartres en Lumières, France
- 2 - LUMIERE, Durham, UK
- 3 - GLOW, Eindhoven, The Netherlands
- 4 - Glasgow Radiance Festival of Light, UK
- 5 - Gothenburg Christmas City (Julstaden), Sweden
- 6 - Light in Jerusalem, Israel
- 7 - Fête des Lumières, Lyon, France
- 8 - Medellin Christmas Lighting, Colombia
- 9 - Montreal High Lights Festival (Montreal en Lumiere), Canada
- 10 - Osaka Hikari Renaissance, Japan



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↘ Get your copy of the report!

The report on *The Economic and Cultural Benefits of Light Festivals* is available in an electronic pdf format.

Email luci@luciassociation.org to get your copy.
English, 103 pages / Free for LUCI members

A look at some impact indicators:

Visitor volume: the festival host cities studied in the report have an average ratio of 3.4 visitors to every city resident. The cities of Lyon and Chartres stand out as having the highest volume of visitors compared to the size of the city. In Chartres there are 24 visitors to any one resident and in Lyon the ratio is similarly high at 8.6 visitors to every resident.

Visitor expenditure: in Gothenburg the daily expenditure per overnight visitor was calculated at an average of 116 €, and in Glasgow, 97 €.

Event costs: data from 14 festival host cities showed an average cost of 8 € per visitor and indicated that the longer the duration of the event (over a few months), the lower the cost per day/visitor.

The cost / expenditure ratio: for the five festival host cities that have calculated this, the ratio is largely positive, ranging from 2.41 for Durham to more than 35 for Gothenburg!

Press coverage: the estimated value of media coverage is also an effective indicator - in Osaka, for example, the advertising value of media coverage as a result of the festival was estimated at 2 000 000 €.

Jobs created: in Medellin, the light festival creates jobs for hundreds of people every year as part of the preparation activities for the event. In 2010, the festival employed 780 jobless people for temporary work of six months.

City image perception: a visitor survey led by the City of Glasgow in 2005 and 2007 showed that for approximately 95% of respondents, the Radiance festival had a positive impact on the image of the city.



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PLUS (Public Lighting Strategies for Sustainable Urban Spaces), financed by the EU's INTERREG IVC programme, capitalizes on existing urban lighting best practices on energy efficiency in European cities. It aims to offer a set of recommendations leading to the improvement of cities' lighting strategies and action plans.

PLUS partners

- Lead Partner: Eindhoven (The Netherlands)
- Bassano del Grappa (Italy)
- Birmingham (UK)
- Burgos (Spain)
- Iasi (Romania)
- Leipzig (Germany)
- Lyon (France)
- Nice Côte d'Azur Metropole (France)
- Patras (Greece)
- Sofia (Bulgaria)
- Tallinn (Estonia)
- LUCI (Lighting Urban Community International)

Programme: INTERREG IV C
Total budget: 1 689 508 €
Duration: October 2010
to December 2012



NEWS FROM PLUS

➤ PLUS to organize conference on energy efficiency

After detailed studies of the public lighting strategies of each one of the 10 PLUS partner cities, the project is now entering a new phase focused on capitalization. Drawing from the knowledge accumulated during the Deep Dive meetings and visits, the PLUS project will, in particular, be organizing a conference on energy efficiency in lighting during the Sustainable Energy Week (18 - 22 June 2012) in Brussels.



Workshop

➤ Burgos lights its heritage



©City of Burgos, photo Ordóñez & Ordóñez



©PLUS

The conference, which will address issues such as optimizing energy consumption in public lighting especially in relation to LEDs, aims to raise awareness on sustainable urban lighting strategies at the EU level, one of the key objectives of the project.

Burgos, which has a rich historical heritage with three UNESCO Heritage monuments, and which is also on the Santiago de Compostela route, aims to use lighting as part of its city marketing strategy to boost tourism.

At the PLUS Deep Dive, held on the 8th and 9th of February 2012, city urban planners presented the new lighting plans for the Cathedral surroundings which incorporate the first LEDs in the historical city centre. The area is now lit using aluminium rectangular columns with LED directional spotlights that vary in height depending on the lighting requirements. The city also presented the illumination plans, designed by Anton Amann from Architectural Lighting Solutions, for its UNESCO certified Cathedral, a lighting initiative that aims at encouraging tourists to spend the night.

Besides using LEDs to save energy, Burgos, a signatory of the Covenant of Mayors, Agenda Local 21, and a new member of the "Smart Cities" network, will also be implementing a tele-management system (GPRS) in its new boulevard.

➤ Bassano del Grappa develops its lighting strategy

The City of Bassano del Grappa welcomed lighting experts to examine its lighting strategy during the PLUS Deep Dive held on the 27th and 28th of October 2011. Here is what City Councillor in charge of Sustainability and Mobility, Andrea Zonta had to say about the process:

What did you think of the PLUS Deep Dive?

It was a really important experience for our city. We had the possibility to exchange views with other municipalities at the forefront of public lighting

which gave us precious advice. Compared to them, we are certainly neophytes in public lighting and it is really helpful to start our journey driven by partners with such a level of experience and competence.

How have these meetings helped Bassano del Grappa?

The valuable analysis of the PLUS external experts showed us the right path to follow in order to present the new Lighting Plan to the citizens of Bassano del Grappa. In particular, it enabled us to widen our horizons by



©Municipality of Bassano del Grappa

opening up our vision of lighting to include environmental impacts, energy optimization, and the necessity of stakeholder involvement. Thus we will involve not just industries and businesses but also schools, associations, neighbourhood councils and citizens from the beginning of the planning process.

What conclusions particularly interested you?

Personally, I was very much impressed by another concept that the external experts pointed out: the opportunity offered by light to enhance and consequentially promote the many historical, artistic and environmental assets of our city. The new Lighting Plan will therefore be used to transform Bassano del Grappa to a big open-air exhibition respecting the principles of sustainable development and energy efficiency.

▼ Sofia: promoting a vibrant nightlife with light

The Municipality of Sofia aims to create a safe and comfortable environment focusing on the welfare of its citizens by the implementation of environmentally and socially sustainable public lighting solutions.

The city, which offers its citizens night skiing, night ice-skating and night bicycling opportunities, is focused on enabling inhabitants to enjoy more outdoor activities at night. It recently inaugurated "Skate Park Sofia", the largest skate park in the Balkans, which is specially lit using four photovoltaic columns positioned to ensure that the shadows caused by the varying levels of the skate park are kept to a minimum.

One of the priorities of Sofia's new Public Lighting Master Plan, currently in the process of development, will also be the design and installation of effective lighting in public parks. At the moment, the city is implementing pilot projects for energy efficient lighting in South Park and Park Studentski (see PLUS showcase at www.luciassociation.org/plus).

Sofia presented its public lighting strategy and its "Skate Park Sofia" best practice to experts during the PLUS Deep Dive on the 28th and 29th of February 2012.



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▼ Lyon develops new device to measure lighting levels



©M. Djaoui

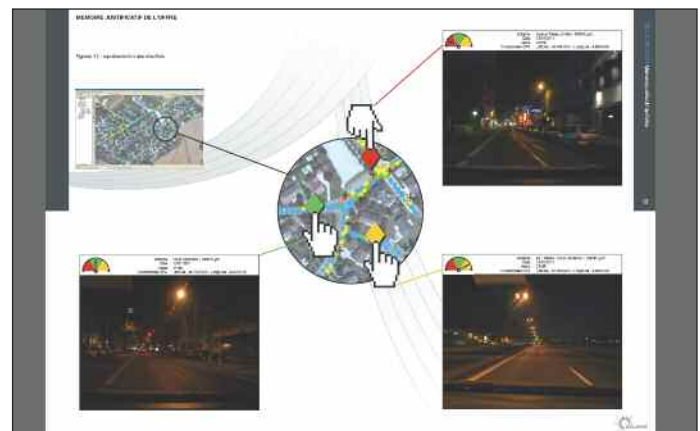
The City of Lyon, in order to ensure compliance with the European standard EN 13201 which details lighting levels advised for each kind of road surface, had launched a tender to design and develop an automatic measuring device to quantify and qualify street lighting levels.

The winning proposal, made by Eclatec, conducts lighting measurements at 20 cm above the ground level using 3 load cells. The entire system

is installed on a trailer and can take photos during the change of lighting.

The system is also very precise due to the use of multiple geo-positioning systems such as GPS, GLONASS and the soon to be launched Galileo.

This technical solution has been operational since the end of 2011 and the first tests all over Lyon will start in early 2012.



↘ Lighting for sustainable mobility in Dresden



The new Molen Bridge in Dresden is the first route exclusively for cyclists that connects the city centre to the Ubigau district.

The 80 m long and 3 m wide structure crossing the river has been lit by Straßen - und Tiefbauamt, Dresden's municipal engineering department, using LEDs encapsulated in a transparent plastic housing that fits directly into the underside of the handrail.

During the day, the fixtures' presence goes virtually undetected, but beginning in the twilight hours, the luminaires produce an unbroken ribbon of light, uniformly illuminating the way.

For environmental and conservational reasons, the LED handrail fixtures are installed on just one side of the bridge (to minimize light pollution), and are even insect-friendly thanks to the UV-free light produced by the LEDs!

↘ Cities in South Baltic region examine LEDs in public space

The EU project "LED - Light in Public Space", which aims to provide facts that help municipalities convert their public lighting to LED technology, involves 15 partners from the South Baltic Region.

The project, which runs from 2009 to 2012, is currently implementing various LED pilot initiatives, such as self-sufficient lamp posts in Oskarshamm (Sweden), an art installation consisting of translucent pebbles made of epoxy resin with a built in LED lighting system in Gdansk (Poland), LED test lighting in a schoolyard in Wismar (Germany), and using citizens as "Light Pilots" in Kalmar (Sweden) to get inhabitant feedback on various LED luminaires.

The project will be holding its LED Academy Seminar on light and urban planning from the 27th to the 29th of March 2012 in Wismar. LUCI and PLUS members are invited to attend the open sessions of the event.

More information at <http://www.ledlightproject.eu/>



↘ Update on EU Green Paper on Solid State Lighting

On the 1st of March 2012 the European Commission closed the public consultation on its Solid State Lighting Green Paper "Lighting the Future - Accelerating the Deployment of Innovative Lighting Technologies".

The results of the consultation will soon be published on the Green Paper consultation page http://ec.europa.eu/information_society/digital-agenda/actions/ssl-consultation/index_en.htm Stay tuned !

↘ 2012 call for proposals under the "Intelligent Energy - Europe" programme

A call for proposals for funding under the Intelligent Energy - Europe (IEE) programme was published on the 20th of December 2011 with a deadline for the submission of proposals on the 8th of May 2012, 17:00 CET.

Funding is available for different types of actions furthering the EU's efforts towards clean and sustainable energy. The main areas covered

are energy efficiency, new and renewable resources and energy in transport, as well as integrated initiatives which combine several of these or address more than one economic sector at the same time.

Go to http://ec.europa.eu/energy/intelligent/getting-funds/call-for-proposals/how-to-apply/index_en.htm for more information.

➤ LED lighting in the historical city centre of Arraiolos (Portugal)

The town of Arraiolos (7 352 inhabitants) recently won the first prize of the Auroralia Award 2011 on sustainable lighting initiatives with its project renewing the lighting of its historical centre using LED technology in conjunction with an urban lighting management system. Armando Oliveira, Alderman of the Municipality of Arraiolos, tells us more about this project...

"The first LED village in Portugal"

■ What is the context of the project?

The change in lighting paradigm occurring throughout the world today is undeniable. LED technology and tele-management systems are the new path for sustainability and energy savings. With this in mind, our aim was to implement a lighting solution that was sustainable, resistant to vandalism and had good design, with a high level of quality lighting. We would like this to become a reference in the movement towards the improvement of the aesthetic, social and environmental dimensions of cities.

■ What are the concrete actions of the project?

This project covers three important aspects: more light, better quality of light and both energy and CO₂ emission savings. With less energy we have tried to bring indoor lighting to the outdoors. This means a warmer and more comfortable light with a pleasant color. We wanted to highlight the architectural richness of the village as well as its green areas, even during the night. It was important to consider the cultural and social use of the space (and not only functional), as well as people's expectations.

A new LED luminaire has been specially developed for the pedestrian and road areas in warm white, enabling excellent colour rendering and greater visual comfort. The decorative lighting also makes use of LEDs, but in neutral white, in order to differentiate from the general lighting.

The new lighting scheme will generate energy savings of approximately 50% per luminaire and dramatically reduce maintenance costs. The luminaires are also equipped with a remote management system to adapt the lighting levels during the night, which will generate additional energy savings of 30%. Moreover, all of the equipment used is made with recyclable and reusable materials such as aluminium, stainless steel, glass etc.

■ What impacts and public response has this project had?

The project has enabled the requalification of an old degraded space into a high quality space with multiple uses for the citizens. It has provided a new urban identity, improved nightlife and social cohesion, and is a source of local pride. The new lighting installation has also had major positive coverage in the Portuguese press. Several articles in various media concerning Arraiolos and its new LED lighting system were published following the installation.



©Council of Arraiolos

IDENTITY CHIP

Location: Arraiolos (Portugal)

Stakeholders

Contracting authority: Council of Arraiolos

Project manager: Rogério Oliveira, Eduardo Gonçalves

Lighting design: Eclipz, Design de Iluminação

Manufacturers: Schröder Iluminação, S.A.

Installation: Schröder Iluminação, S.A.

Maintenance: Schröder Iluminação, S.A.

Technical

Number of luminaires: 419

Lamps: 419 Rivara with 36 HP LED of 47.52 W; 29 Terra Midi LED of 21.12 W; 15 Trasso of 14.52 W and 2 Enyo floodlights of 3.63 W

Power: 20 748.42 W

Energy consumption: 64 796 kWh

Costs

Total project budget: 605 000 €

Functioning cost: No costs during seven years

Implementation

Project start date: 2010

Duration: 120 days

Inauguration: September 2011

ADVANTAGES:

- Annual energy savings of 131 478 kWh equivalent to 16 566.62 €
- Annual savings in CO₂ emissions of 43 771.73 €
- The luminous flux can be controlled and adapted to the traffic

DISADVANTAGE:

- The maintenance (replacement and repair) of the new luminaires is not taken care of by EDP, the contractor that deals with the lighting points in the rest of the town.

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



©Philips Lighting - photo Adria Dubrovnik



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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