



ENVIROCOM AWARDS

Dún Laoghaire-Rathdown
Awards Dinner & Presentation
Thursday, 13th October 2011

Royal Marine Hotel, Dún Laoghaire



Welcome to the EnviroCom 2011 Awards Dinner on behalf of Dún Laoghaire Rathdown Chamber



We are here tonight to recognise and honour businesses, agencies and voluntary groups for the steps they have taken to preserve and protect the environment of Dún Laoghaire–Rathdown.

I would like to thank our distinguished guests for taking the time from their busy schedules to be here and to present the awards. I would also like to thank Dún Laoghaire Rathdown Chamber staff for organising these awards and the judges and volunteers for their hard work and many contributions to these awards.

Finally, I want to specially thank our sponsors, Dún Laoghaire–Rathdown County Council, the Dún Laoghaire–Rathdown County Enterprise Board, the Environmental Protection Agency, Fáilte Ireland, the Health Service Executive, Sustainable Energy Authority of Ireland, ESB E-cars and United Retek Ltd. for their support, without which these awards would not be such a success.

Mr Neil Keenan
President, DLR Chamber

PROGRAMME

| | |
|--------------------------|----------|
| DRINKS RECEPTION | 7.30 PM |
| WELCOMING COMMENTS | 8.10 PM |
| DINNER | 8.20 PM |
| AWARDS CEREMONY | 9.50 PM |
| CLOSE OF EVENING | 11.00 PM |

JUDGING

Dún Laoghaire Rathdown Chamber would like to thank the following individuals for volunteering to serve as judges and evaluate the environmental programmes of the awards finalists.

- ▶ **Mr Kieran Carberry**, Health Services Executive
- ▶ **Ms Clara Clarke**, DLR County Enterprise Board
- ▶ **Ms. Jean Clarke**, Dept of Environment, Heritage & Local Government
- ▶ **Mrs. Margaret Coles**, Dún Laoghaire-Rathdown County Council
- ▶ **Ms. Liz Ferris**, Dún Laoghaire Rathdown Chamber
- ▶ **Ms Nicola Fitzgerald**, Dublin Tourism
- ▶ **Mr Brendan Henderson**, Dún Laoghaire Rathdown Chamber
- ▶ **Mr. Kevin O'Rourke**, Sustainable Energy Authority of Ireland
- ▶ **Mr. Keiron Phillips**, Environmental Protection Agency
- ▶ **Ms Susanne Sless**, Dún Laoghaire Rathdown Chamber

NOMINEES & FINALISTS

The EnviroCom 2011 Awards Committee reviewed all of the nominations and identified the following nominees as awards finalists. A judging panel was then formed for each awards category. The judging panels in turn evaluated and scored each nominee and selected the overall winner in their respective categories. A synopsis of each nominee's submissions is provided. Nominees are listed in alphabetical order.

MENU

Cream of vegetable soup

OR

The Royal Marine Caesar salad with herb croutons, parmesan cheese & bacon lardons

Sea bass with a brown crab and dill cream

OR

Roasted sirloin of beef with burgundy jus

Assiette of desserts

Freshly Brewed Tea or Coffee

Vegetarian Option Available on Request

**Please advise if you have
Special Dietary needs**

CATEGORIES & FINALISTS



Waste Prevention

- ▶ Dell Ireland
- ▶ Vodafone

Water Conservation

- ▶ Dún Laoghaire Shopping Centre
- ▶ Spring Grove Services

Energy Management

- ▶ Amgen Dún Laoghaire
- ▶ Mercury Engineering

Energy Manager of the Year

- ▶ Bank of Ireland
- ▶ Dell Ireland

Engaging Communities in an Environmental Project

<50 EMPLOYEES/
VOLUNTEERS

- ▶ Association of Landscape Contractors of Ireland
- ▶ Authentic Energy Management Services

>50 EMPLOYEES/
VOLUNTEERS

- ▶ Applegreen
- ▶ RSA



Environmental Performance

TOURISM/
HOSPITALITY SECTOR

- ▶ Fitzpatrick Castle Hotel
- ▶ Johnnie Fox's Pub
- ▶ Radisson Blu St. Helen's Hotel

Environmental Performance

RETAIL/SERVICE
SECTOR

- ▶ Baxter Healthcare
- ▶ Dundrum Town Centre
- ▶ Twomeys Supervalu

Special Merit

<10 EMPLOYEES

- ▶ Belfield Technologies
- ▶ Power Green
- ▶ Thorn Environmental Ltd.

Environmental Innovation
Awarded at judges discretion



Energy Management category

Amgen, founded in 1980, pioneered the use of recombinant DNA and molecular biology to create effective medicines in the fight against cancer, kidney disease, rheumatoid arthritis, bone disease, and other serious illnesses. In Dún Laoghaire, Amgen operates a world-class, 37,000 square-meter aseptic operations manufacturing facility that also includes laboratories, warehouse areas, packaging lines and a bio-processing suite.

Using a strong cross-functional team, individual innovation and corporate investment Amgen Dún Laoghaire has identified and implemented a comprehensive programme to save energy used for lighting, heating, cooling and in their manufacturing operations.

Among other initiatives, Amgen identified the need to modify permanent lights in plant rooms that were occupied only intermittently. Not deterred by cost prohibitive solutions proposed by outside lighting suppliers, Amgen personnel designed a new 'energy saving unit' that was easily installed in existing light units enabling them to maintain safe but not excessive background light levels. These saved 320,283 kWh per annum and eliminated 147 tonnes of CO₂ emissions per year.

To reduce the energy load required to run the Heating, Ventilation and Air Conditioning (HVAC) system, Amgen identified areas that did not require air conditioning at all times, such as offices and the canteen which did not need to be heated when they were vacant. The HVAC system was set on time clocks to operate during working hours (7am-7pm). The programming was also changed to widen the temperature bands from 18-22°C to 16-24°C. On/Off switches were placed in the utility rooms as these areas are natural heaters which do not require heating. These improvements generated savings of 1,460,000 kWh per year in electricity, reducing CO₂ emissions by 672 tonnes per year.

To further reduce the amount of energy required to operate the

HVAC system, Amgen rerouted ducting, changed damper positions to ensure efficient air flow, increased duct sizes to reduce pressure loss and installed new software to stop simultaneous heating and cooling that had been occurring in certain areas. These changes produced savings of 498,225 kWh of electricity and 1,600,000 kWh of gas per year, thereby eliminating 525 tonnes of CO₂ emissions per year

Amgen eliminated the reheat step for bypassed and unused Water for Injection (WFI) in its manufacturing process. To improve efficiency the WFI is now cooled at its final location as opposed to using a point use cooler. WFI is now drawn off a hot water supply rather than a cold supply saving 17,000 kWh per year of electricity and 40,500 kWh per year of gas.

Overall Amgen's energy saving projects reduced CO₂ emissions by 1,402 Tonnes per year.

Engaging Communities in an Environmental Project category

Petrogas trading as Applegreen is a 100% Irish owned Company with 65 service stations in Ireland and 14 in the UK. The Company has enjoyed rapid growth year on year since its inception in 1992. The Applegreen service stations in Dún Laoghaire – Rathdown are in Mount Merrion, Balinteer and Ballybrack.

Engaging Communities in an Environmental Project initiatives include:

1. Every time customers buy anything in Applegreen shops, (excluding cigarettes) 1 cent of that purchase total is donated to an Irish Registered

Charity through the 'Applegreen Charitable Fund'. Applegreen has nominated GOAL and The LauraLynn House to benefit from the fund for 2009 –2011. Both of these charities are located in the Dún Laoghaire - Rathdown

County Council area.

To date the fund has raised and donated over €182,518 to these two charities.

2. GOAL Ugandan Housing project is a beneficiary of the Applegreen Charitable Fund.

Environmental initiatives linked to the Housing Programme include:

- ▶ **Fuel Saving Stoves** maximise heat transfer to the food being cooked reducing the consumption of firewood by up to 60%. In addition, it saves many hours every week, usually spent by women and girls, collecting firewood freeing up their time for more productive activities such as going to school or tending gardens. Uganda is facing an energy crisis marked by an increasing imbalance between the supply and demand of firewood. According to the UN Population Fund, Uganda's population is predicted to double by 2025 and available firewood will reduce by a third per person. Currently 95% of the rural people in Uganda rely on firewood for energy.

- ▶ **Rainwater Harvesting** is considered an essential part of conserving natural resources. Only 26% of the population of Bugiri (one of the districts where GOAL has built Applegreen funded houses) has access to clean water. At all the new houses that GOAL builds, a two cubic meter rainwater-harvesting tank is installed with a flush system that cleans the roof prior to collection of rainwater and a charcoal filter designed to filter out contamination. A full water tank can provide water for approximately 16 days to a family of six, with an average consumption of 20 litres a day per person.

- ▶ **A rubbish pit for organic waste** is included in each housing unit to encourage the reuse and production of sustainable and organic fertilisers in these rural areas, which can be spread in fields or in small plots to support crop and vegetable production. Each housing unit is supplied with a pit and the community team trains the beneficiaries and the communities on how to use and maintain them.

- ▶ **Latrines** are provided to all houses - either an Ecosan environmental latrine, which allows human waste to be safely processed into manure or a traditional pit latrine of which at least 30% is made from recycled PET bottles by Eco-tec.

3. GOAL organized an event in September 2011 called 'Bags for life' where people could donate unwanted good quality handbags to the Goal Office for sale on the night of the event. 100's of bags were sold for reuse with over €14,000 raised on the night.

4. The LauraLynn House, which opened in September 2011, is also a beneficiary of the Applegreen Charitable Fund. Designed to reduce its environmental impact the LauraLynn House has the following features:

- ▶ Energy efficient lighting throughout with LED

fittings and energy efficient bulbs used. Where possible lights are controlled by PIRs. All rooms have maximized the use of natural lighting. Areas with no external walls have sun tubes and natural light wells.

- ▶ 24 Photovoltaic panels generate up to 5kW of free electricity that is used to power lighting and general services. 24 solar panels are used to generate domestic hot water. A ground source heat pump generates hot water for the under floor heating system.
- ▶ Air to air heat exchangers are used throughout the building to preheat cold incoming fresh air. All windows are triple glazed with a U-Value of 1.35W/m²K and the building is air tight to minimise air infiltration.

ASSOCIATION OF LANDSCAPE CONTRACTORS OF IRELAND

Engaging Communities in an Environmental Project category

In existence for over 40 years, the Association of Landscape Contractors of Ireland (ALCI) represents Landscaping Contractors all over Ireland who are committed to providing excellent quality and service to their customers. The ALCI is committed to the development of the landscape industry by ensuring quality workmanship, best practice, reliability and training. It formulates and recommends contract procedures for the guidance and common use of all members, encourages high standards of workmanship and holds regular meetings at both regional and national level and raises the efficiency and profitability of the industry by encouraging progressive management methods and protection of the environment. Bikes4Africa is a project for the Spirit of Africa charity founded by Bernard Fitzpatrick, a social enterprise entrepreneur who has a 5 year involvement and sponsorship of education and employment projects in Genadendal RSA.

Engaging Communities in an Environmental Project initiatives include:

1. Landscape gardeners segregate bikes and other garden debris for recycling as part of the garden maintenance service to their customers. Metal recyclers require bikes to have tyres, saddles and pedals removed prior to accepting them for recovery. This proved too time consuming and costly for landscapers to comply with.

2. In 2009 ALCI agreed to collaborate with the Bikes4Africa charity to collect, store and ship containers of used bikes to under-privileged people living in remote areas near the Genadendal mission village in South Africa. Two containers of used bikes were delivered within the last year. These bikes have helped create a cottage industry that now trains and employs villagers to refurbish and sell repaired-bikes to their

neighbours for a modest return. Bicycles have been used to get to work or school, to pump water and in some cases modified as trailer ambulances to get the sick to medical centres quickly. The sport of biking is also proving a wonderful means of uniting communities.

3. Collaboration with the Bikes4Africa project solved the waste disposal and safety issue (damaging shears) for landscapers and also created employment in Genadendal

repairing the bikes and selling them and improved the quality of life for people of all ages.

4. This project would not have been possible without the generous support received from sponsors, landscape contractors, bike shops and friends of the Bikes4Africa project who facilitated the logistics involved in collecting and storing the bikes, shipping the containers and organising fundraising events to cover the costs involved in exporting the bikes.

AUTHENTIC ENERGY MANAGEMENT SERVICES



Engaging Communities in an Environmental Project category

Established in 2005, Authentic Energy Management Services' company name was inspired by Neil Croft's book, Authentic Business. The ethos of the company is to increase profits by significantly reducing business energy usage. Authentic Energy Management Services works with people in a proven structured approach to optimise energy usage in transport, education, offices and information technology, using low and no cost actions for measurable results.

Engaging Communities in an Environmental Project initiatives include:

1. In 2009 Authentic Energy Management Services

approached the UCD Energy Unit with the idea of implementing a "Student Switch Off Campaign" with its 25,000 students (motivating

students to save energy in halls of residence). The focus of the UCD Energy Unit to this point had been on technical improvements to save energy but energy awareness was an important component of its Energy Policy. Authentic Energy Management Services were engaged to develop a campaign for the 3,000 employees beginning with the 24 Energy Champions working in 13 buildings on campus.

2. A Communication strategy was implemented comprising: workshops on how to improve energy efficiency by identifying energy saving opportunities in each building, electronic newsletters giving information on energy efficient improvements, competitions and interesting facts regarding energy usage and regular one to one conversations updating progress made by the Energy Champions.

3. In June 2010 an Energy Awareness Survey was developed (in conjunction with Citi Group) to benchmark Energy Awareness in UCD. 85% of those surveyed stated that they completed an energy saving action at least once a day. Newsletter readership was also measured using the Newsletter creator to identify how many people were reading the newsletter and who they were.
4. In 2011 Active Energy (Online Energy Monitoring System) was launched so Energy Champions could see how much energy their buildings were using on a day-to-day basis. Active Energy will be used to advise the Finance Department of its energy usage and incentivise it to reduce costs. Energy Champions will run competitions to reward employees with goodies, based on their knowledge of energy usage in their buildings.

Energy Manager of the Year Category

Bank of Ireland operates 350 buildings in Ireland and Great Britain. Eight of these are in Dún Laoghaire Rathdown, including their Operations and Data Centre in Cabinteely which runs the Bank's computerised banking network on a 24/7 basis. This site received ISO 14001 certification in 2005. Last year Bank of Ireland achieved EN 16001, becoming the first financial institution in the world to be externally certified to the EU standard for Energy Efficiency.

Bernard Higgins, Group Facilities and Energy Manager, led the bank's efforts to implement the changes necessary to achieve the desired energy savings and attain EN 16001 certification. This required changing employee behaviour and identifying cost effective capital expenditures. His work resulted in various operational improvements, including:

1. Recognising that effective measurement of electricity consumption was essential to developing an energy reduction programme. Rather than knowing only the overall consumption at the site, it was critical to know how much electricity was being consumed by the various individual areas of the building and individual pieces of equipment. Bernard

spearheaded the business case for the installation of utility monitoring devices and developed an energy reduction programme based on the results. With quantified information and costs, his arguments for implementing energy saving programmes were so convincing that executive support was given to implement them across the organisation despite the financial challenges facing the bank. As of June 2011 the savings on first 20 sites were €2,000 or 8 tonnes of CO₂ per month. Extrapolated across the entire network this would be 120 tonnes per month or 1,440 tonnes of CO₂ per year.

2. The bank's computer network requires continuous Universal Power Systems (UPS) equipment to provide backup

electricity needed to keep the system operational should the electrical grid fail at any time. Bernard determined that new technology for UPS equipment meant the bank could cost effectively replace two aging and inefficient UPS systems in the Cabinteely Data Centre with one new modular system. The new UPS maintains the necessary high level of resilience in the power network while saving €30,000 or 163 tonnes of CO₂ per year.

3. The computer equipment in the bank's Data Centre generates substantial

heat requiring continuous air conditioning. Bernard identified and made the business case for a new air conditioning system for the Data Centre with free cooling capability and heat recovery. As a result the system recovers the heat removed from the Data Centre and uses it to warm adjacent office areas. This has reduced electrical operating costs for this air conditioning system by 35% and will repay the capital cost of the equipment changes in only three years.

BAXTER



Environmental Performance Service Sector category

Baxter Healthcare is a global, diversified healthcare company that develops, manufactures and markets products to help people with haemophilia, immune disorders, infectious diseases, kidney disease, trauma, and other chronic and acute medical conditions. Baxter has operated in Ireland since the mid 1960's and employs over 1,300 people here. Baxter Deansgrange is accredited to the ISO 14001 Environmental Management Standard demonstrating its commitment to reducing the environmental impact of its operations using a combination of low cost behavioural management elements as well as higher cost capital expenditures.

Baxter strives to produce greener products by anticipating and managing the environmental impacts of these products

throughout their life cycle. Under this system environmental impacts of all new products are evaluated early in their design stage with

emphasis on developing the most environmentally appropriate production process, optimising product recyclability and assessing the product's environmental impacts from "cradle to grave".

Waste reduction initiatives include:

1. Baxter's Homecare Service for renal and oncology patients, offers home delivery of medicines, nursing support and waste collection following treatment. Baxter arranges for the collection of vials, needles, drugs, packaging and bio-waste which are tracked using a fully integrated bar code system resulting in approximately 86,000 kg of home patient waste being collected and disposed of annually. This programme includes waste containers being sterilised and re-used approximately 600 times before being recycled for their material content.
2. Baxter custom tailors packaging to minimise waste. Packaging systems are designed to fit standard commercial shipping containers in a way that maximises the ratio of product to packaging. Under this system disposable wooden

pallets and plastic pallet wrap are no longer used. Instead a reusable product handling system was developed that eliminates shipping waste and avoids unnecessarily placing waste material at the customer's site.

3. Baxter has also implemented a comprehensive policy to reduce and recycle waste associated with their normal business and office operations including extensive sorting and recycling of office paper, other consumable supplies and employee canteen waste. Baxter requires preparation of monthly performance reports to assure maximum practicable waste reduction is achieved. All waste generation and disposal is tracked which enables management to assess progress toward waste-reduction goals and improve process efficiency. This helps to reduce expenses related to raw materials, waste handling and disposal and decreases the environmental impacts associated with Baxter's operations.

Energy saving initiatives include:

To reduce energy consumption, Baxter conducted a lighting survey

in their warehouse facilities. The survey determined that energy consumption could be reduced by replacing fluorescent warehouse lighting system with an LED system. Baxter has since installed the LED lighting system.

Water saving initiatives include:

To reduce water consumption Baxter installed water flow control systems and sensors. These included hygienic 'no-touch' automatic urinal flushing, precise control systems for showering, hand washing and toilet systems. These systems were then linked via safe extra low voltage (12 Volts) control systems.

BELFIELD TECHNOLOGIES



Special Merit category

Belfield Technologies is a new energy management venture which has evolved from research undertaken by Dr. Ger Devlin, Dr. Kevin McDonnell, David Megan, Barry Bowen and Brian McDonnell in the Bioresources Research Centre, UCD School of Agriculture, Food Science and Veterinary Medicine. Belfield Technologies is based in NovaUCD, the Innovation and Technology Transfer Centre responsible for both the commercialisation of intellectual property arising from UCD research and for the development of co-operation with industry and business.

The HIDLightSaver, is the result of research over the last three years by Belfield Technologies into the costs associated with lighting and High Intensity Discharge (HID) lamps found in street lighting, floodlit arenas, motorways, car parks, and retail outlets. It utilises an innovative 'intelligent' voltage system, which limits voltage fluctuations to maintain lamp efficacy and colour characteristics.

The HID LightSaver is programmable and compatible with Building Management Systems and is easily retrofitted into existing lighting control systems. It has the potential to significantly reduce lighting operational and maintenance costs by prolonging the life of lamps and reducing the levels of greenhouse gases being emitted into the atmosphere. What makes HID LightSaver unique is

that higher percentage savings can be achieved by manipulating the voltage to achieve constant optimum output wattage for each lamp without having to retrofit each individual lamp.

Street and public lighting accounts for 30-40% of Council and Municipal Authority energy usage and carbon footprint in Ireland and across Europe.

The scope for carbon and cost savings is shown below.

Belfield Technologies plan to launch into the UK and EU market and to create at least 20 jobs in Ireland by 2013. Its vision is to become a successful Irish green-tech company providing energy efficient and innovative cost savings solutions worldwide.

| Market | Total No. Of Street Lights | Total Running Cost | Potential Savings % | Potential Cost Savings |
|---------|----------------------------|--------------------|---------------------|------------------------|
| Ireland | 400,000 | €23 Million | 35% | €8 Million |
| UK | 7.5 Million | £500 Million | 35% | £175 Million |
| Europe | 120 Million | €6 Billion | 35% | €2.1 Billion |

DELL



Energy Manager of the Year and Waste Prevention categories

Dell was founded in 1984 with a unique vision of how technology, including personal computers, should be designed, manufactured and sold. Today, Dell connects with more than 5.4 million customers daily and employs over 100,000 people worldwide. In Cherrywood, Dell operates a multi-lingual technical sales and services business centre employing approximately 1,200 people. Operations include Dell's European Middle Eastern and Asian (EMEA) Commercial Sales, Global Services Support, Marketing, Finance and Support Teams and a Cloud Computing Engineering Centre.

Energy Manager of the Year category

Because its energy management programme is the product of a collaborative group effort rather than a single individual, Dell has nominated its entire Green Team as Energy Manager of the Year rather than single out any one individual. The Green Team consists of Dell employees from throughout the facility. The team has identified a number of energy saving initiatives and successfully involved fellow employees and customers in their implementation.

Over the past two years, the Green Team at Dell in Cherrywood has championed the following energy conservation programmes:

- ▶ Car Pooling – reserved parking spaces
- ▶ 'Turn Off The Lights' programme
- ▶ Cycle To Work Scheme
- ▶ Bike Doctor
- ▶ Earth Day Events
- ▶ Grow It Yourself
- ▶ Central web control for projectors and monitors in meeting rooms with time management
- ▶ Dedicated waste management stations

- ▶ Transition from plastic water cups to starch based compostable water cups
- ▶ Reduction of print devices and installation of multifunction devices
- ▶ All new meeting rooms are fitted with PIR motion detection for lights

The Car Pooling Scheme was suggested by employees under the DELL GO GREEN competition. A transport survey ascertained interest in a car-pooling website. Dell then partnered with the Dublin Transportation Office (DTO) to prepare a car-pooling website solely for Dell. As a result there are now 15 assigned car pool parking spaces with 106 participating employees. The programme has reduced vehicle distances travelled by 34,469 kilometres, saved 2,240 litres of petrol and reduced CO₂ emissions by 578 kg. The Green Team are currently extending the programme to other businesses in Cherrywood Business Park and allocating more car pool parking spaces.

The 'Turn Me Off' Programme is an awareness campaign to remind employees to switch off monitors and lights when leaving their desks or meeting rooms. The Projector Energy Conservation Project is also

part of this overall programme.

This is a central shut down of all projectors and monitors with touch button control mounted on the walls making energy conservation easier for employees. There is also an auto shutdown on projectors in the building at a certain time each night.

The Cycle to Work Scheme has proved popular necessitating expansion of the programme to provide employees additional bicycle purchasing opportunities and enhanced facilities for cyclists. The scheme was promoted through initiatives such as:

- ▶ Bike maintenance workshops
- ▶ 'Bike Doctor' sessions where a bike mechanic 'tunes up' small problems
- ▶ Provision of a bike kit at reception for cyclists (pump, puncture repair kit, lights, lock etc.)
- ▶ Provision of discounts for Dell employees with their Cycle to Work suppliers for bike servicing or equipment purchases.
- ▶ Ensuring that remodelling work at the site provides enough cycle parking spaces, lockers and showers for those in the programme.

Waste Prevention category

Dell has set ambitious goals to reduce waste in the production process. To achieve this, Dell considers the environmental impact of their products at every stage of production. A key part of this effort is a packaging engineering team that continuously reviews and develops improved packing methods that use the least amount of packaging material possible, while still protecting product shipments. The packaging team follows a strategy called the Three Cs:

- ▶ Cube — How big is the box? Could it be smaller?
- ▶ Content — What is the packaging made of? Could it be made of something better?
- ▶ Curb — Is it easily recycled?

Dell's current goal is to save more than \$8 million and eliminate 20 million pounds (10,000 tons) of packaging material between 2008 and 2012. To do this Dell seeks to decrease desktop and laptop packaging materials by approximately 10 percent worldwide, increase sustainable content in cushioning and corrugate packaging by 40 percent and ensure that 75 percent of packaging components are curbside recyclable. The company

is the only major computer manufacturer with a global packaging reduction target for desktops and laptops.

To date Dell has reduced packaging volume by over 13 percent, increased the amount of recycled content in packaging by approximately 33 percent and increased the amount of curbside recyclable materials in packaging to 57 percent thereby eliminating over 8.7 million pounds of packaging.

Bamboo cushioning material plays a big part in this effort. The use of bamboo was first conceived by staff at Cherrywood. It was first introduced in November 2009 as sustainable packaging for desktop computers. In 2010, bamboo packaging was extended to laptops and smartphones. Bamboo cushioning material will eventually replace the Low Density Polyethylene (LDP) cushioning material previously used. Bamboo was chosen by Dell for a number of reasons:

- ▶ The material is biodegradable and can be composted after use.
- ▶ Bamboo is a type of grass and is completely environmentally sustainable. Bamboo helps

promote healthy soil and the plant's deep root system protects against land erosion. When harvested correctly, bamboo does not require replanting afterwards.

- ▶ The material itself is very strong and durable and can withstand lots of stress.
- ▶ Bamboo is the fastest growing woody plant in the world and can be harvested in just three to seven years — much faster than hardwoods. This makes bamboo highly renewable and a great alternative to foams, corrugate and moulded paper pulp.

When selecting material for packaging, Dell's strategy is to use local materials produced close to the site of product manufacturing and to follow Forest Stewardship Council (FSC) standards. After the bamboo is harvested, it is mechanically pulped at a nearby facility. During this process, 70 percent of the water is reclaimed and reused (the other 30 percent is lost to vaporization). The Mechanical Pulper runs on 100% alternative energy. The Moulding facility reclaims water used in processing, nothing is poured out, and no toxic chemicals are used.

DÚN LAOGHAIRE SHOPPING CENTRE



Dun Laoghaire Shopping Centre
The Heart of Dun Laoghaire

Water Conservation category

Dún Laoghaire Shopping Centre was constructed in 1976 and was the first multi-storey enclosed shopping centre in Ireland. Extended in 1990 the centre now comprises 132,000 sq. ft. of retail space on three levels over a basement goods delivery facility with multi-storey parking for 360 cars.

The Centre has taken a variety of initiatives to reduce their water consumption and waste. To conserve water all the Centre's urinals were changed to a waterless system in 2009.

Last year a routine night inspection by Dún Laoghaire-Rathdown County Council, discovered that the Centre's water meter was continuously running through the night, indicating that even when the Centre was closed, substantial quantities of water were being used (wasted).

The Centre surveyed the building to locate any readily identifiable leaks in landlord maintained common areas that might be the source of water loss. All identified leaks in the common areas were repaired. A night-time survey of tenant areas identified shop units within the Centre that continued

to show high water usage during hours when they were closed. Plumbers determined that leaking urinals and water heaters were the main cause of the problem and in one instance a ball cock was broken in a water storage tank within a tenant's area. As none of these items were actually causing flooding or damage, the tenants were not even aware of the problem.

All of the items were repaired. The Centre determined that a method of continuous monitoring of water usage was needed to avoid similar "hidden" water loss in the future. An Izar unit was purchased which records the flow of water per second at set intervals. The Izar unit works on a radio signal and is fitted onto the main Council water meter where it displays daily usage in both cubic metres and monetary value. This has proven

to be a great success. The Centre now achieves a 'zero' rating at various intervals throughout the night, which indicates a zero flow of water through the water meter.

Water consumption for the period December 2009 to April 2010 was 11,041 units. It had reduced to 5,037 units from December 2010 to April 2011 - a reduction of 46%. The Centre also benefited

from a corresponding decrease in water charges, with a 45% reduction in costs for the same period in 2010/2011 compared to 2009/2010. The target for 2012 is to promote water conservation with the tenants, using an awareness campaign, with posters quantifying water usage in terms of euros for each activity carried out by tenants.

DUNDRUM TOWN CENTRE



Environmental Performance Retail Sector category

Since opening its doors in March 2005, over 70 million customers have visited Dundrum Town Centre. The Centre offers over 100 stores and 34 restaurants, a 12-screen cinema, a theatre and 3,400 car spaces. Dundrum Town Centre employs over 5,500 people and is Ireland's premier retail and shopping destination, winning over 30 other international and national awards since opening.

Dundrum Town Centre is committed to the concept of environmental sustainability for both financial reasons and an ethical desire to reduce its overall environmental impact. Toward this end, Dundrum Town Centre has sought environmental recommendations from a range of sources including, Centre staff, professional advisors and even students from Ireland,

UK and Sweden. Using this advice, Dundrum Town Centre has developed a comprehensive system to reduce its environmental impacts. Among its many programmes are:

- ▶ Reduction of energy consumption by replacing 2,000 49W fluorescent light fixtures with 35W fixtures providing equivalent lighting

and installing energy efficient Dyson Blade hand dryers throughout the Centre. Variable speed drives were installed on the HVAC system to reduce energy consumption and increase the efficiency of the air conditioning system.

- ▶ Reducing water consumption by installing waterless urinals in the men's toilets and flow restrictors on all taps, showers and water outlets. This has resulted in the saving of 560,000 litres of water per year.
- ▶ Undertaking an extensive campaign to maximise the recycling of waste. All shop and restaurant managers are required to undertake annual training where they learn of the Centre's waste procedures and protocols. The Centre now separates its waste into 20 different categories of recyclable material. Shops must use clear plastic bags for waste so that any contamination of recyclables can be easily identified and sent back to the offending store.
- ▶ Food waste is all composted with restaurant employees undergoing mandatory training. The training (and associated instruction manuals

and signage) is provided in seven different languages.

- ▶ As a result of this programme the Centre saved €121,778 in waste costs in 2010. These funds were credited back to the tenants in the form of reduced service charges.

The awards judging team identified that the resource efficiency ethos was ingrained within the management of the Centre which in turn was reflected in the results obtained, and the way that the management-tenant relationship is managed.

Dundrum Town Centre was awarded Ecocert certification recently. The Certificate is valid for three years subject to successful annual surveillance and the Centre's adherence to the Ecocert Programme requirements - one of which is a commitment to continuous improvement.

New projects to be undertaken at Dundrum Town Centre in the next year include a waste minimisation pilot study, a water conservation programme investigating the viability of rainwater harvesting or spring water for toilet and washdown uses and using solar panels to heat water and generate electricity.

FITZPATRICK CASTLE HOTEL



Environmental Performance (Tourism Sector) category

The Fitzpatrick Castle Hotel was originally a stately home built in 1740 and expanded a century later and renamed Killiney Castle. It was further expanded in the 20th century and converted to a hotel by the Fitzpatrick family in the 1970s. It is a family run 4-star hotel with 113 rooms and suites located on Killiney Hill with breathtaking surroundings that overlook Dublin Bay.

The hotel is keenly aware of the importance of reducing its environmental footprint, has established a Green Team to guide its environmental programmes and has attained Silver status in the Green Hospitality Awards.

Waste Prevention

The Fitzpatrick Castle Hotel uses a 3-bin system in its kitchens and a 2-bin system elsewhere in the hotel to separate "true" waste from recyclable materials and compostable food waste. Recyclables are further sorted off-site by the hotel's waste service provider. This has enabled the recycling rate to reach 71% per month compared to 14% in 2007, reducing waste service costs from €4,400 per month to €1,100 per month. Separate facilities are used to store the light bulbs, batteries, printer cartridges and other non-

standard recyclables until there are sufficient quantities to process for recycling. The hotel even supplies candles from a firm that re-melts candle stubs for use in new candles.

Energy Savings

The Fitzpatrick Castle Hotel initially focused on identifying the major areas where the most energy was used and targeted these for improvement. Energy efficient lighting was installed throughout 70% of the hotel area. Master electrical switches were installed in all guest rooms to make it easier for guests to turn out all lights before leaving their rooms. High efficiency boilers were installed to reduce the cost of space and water heating. During the off-season specific wings of the hotel are left unoccupied so that they do not require space or water heating.

Finally, signs have been erected to remind employees and guests to save electricity when possible.

Water Savings

To save water, low-flow showerheads were installed in all rooms. The Fitzpatrick Castle Hotel

has also adopted a programme that allows multi-night guests to choose whether their towels and linens need to be laundered or can be reused. Rather than buying in bottled water, highly filtered domestic water sourced from the mains is used.

JOHNNIE FOX'S PUB



Environmental Performance (Tourism Sector) category

Johnnie Fox's Pub is one of Ireland's oldest and most famous traditional pubs. It is located in Glencullen, a rural area of the Dublin Mountains where over 250,000 people per year are entertained. Famed as the "highest pub in Ireland", it is well known for its culinary fare and internationally renowned for its traditional Irish experience, including the famous "Hooley" show.

Johnnie Fox's Pub has adopted recycling and good environmental stewardship as a core value. Since 2010 it has pro-actively responded to the Waste Management (Food Waste) Regulations 2009 by seeking to exceed minimum standards and achieve a higher level of compliance than required by the regulations. As food is the biggest waste source, management focused on reducing the amount of food waste generated in the first place and then ensuring that all food waste is separately collected for composting. Because of the environmental sensitivity of its

location in the Dublin Mountains, Johnnie Fox's Pub is precluded from on-site composting options and utilises a private collection service to collect and compost the waste off-site.

Staff receive on-going training in environmental procedures. Management has adopted strictly regimented environmental procedures for employees as part of a comprehensive system for handling food waste and recyclable materials. Waste packaging, glass, paper, cardboard and other materials are source separated

and separately collected. Other environmental impacts such as energy and water usage are being reduced through measures such as replacement of inefficient light bulbs and the installation of water efficient taps.

The judges were quick to note that Johnnie Fox's Pub was the first pub to enter for the EnviroCom awards which shows leadership in that sector.

MERCURY ENGINEERING



Energy Management category

Mercury Engineering provides engineering solutions within the construction industry, providing an extensive array of design, management, contracting, building and other engineering services across a multitude of sectors. Mercury Engineering was founded in Ireland in 1972, maintains its corporate headquarters in Sandyford and has offices in the UK, Central and Eastern Europe, the Middle East and North Africa.

As a company, Mercury Engineering is keen to promote environmental considerations within its business. The company's Environmental Policy includes a specific commitment from senior management to develop a culture of good environmental practices with staff encouraged to participate and assist in fulfilling environmental objectives. Mercury Engineering has achieved ISO 14001 environmental certification.

With regard to its own operations, Mercury Engineering practices source separated recycling of the various waste materials generated in its office and canteen areas. It

has a recycling station for waste electrical appliances through membership of WEEE Ireland. It also harvests rainwater from its building.

Mercury Engineering has implemented a number of programmes including:

- ▶ Bike to Work programme
- ▶ Retrofitting of incandescent and fluorescent light with LED light bulbs
- ▶ Installation of energy efficient hand dryers
- ▶ Green vehicle procurement of more efficient company vehicles

- ▶ Greener energy purchasing policy
- ▶ Printing policy to limit printing stations and the number of documents printed
- ▶ Use of life cycle costing factoring in energy consumption over the life of equipment.

Mercury Engineering seeks to incorporate environmental best

practice early into client's projects during the engineering design and construction phases. This is seen as an area where a greater impact can be made than by merely altering its offices' operations.

Mercury Engineering includes environmental performance as one of the prequalification criteria when procuring goods and services from prospective suppliers.

POWER GREEN



Special Merit category

Powergreen is an Irish company specialising in the research, development and manufacture of innovative environmentally friendly products to substitute everyday plastic and chemical-based products in the home, garden and workplace. All products breakdown through a process of microbial degradation, the by-products of which are carbon dioxide, water and biomass. Most of the products are made in Ireland from raw materials that come from renewable sources. The products by the nature of how they function offer safer solutions to people producing, handling and using them than the alternatives on the market. The following examples show how each product benefits people and the environment:

GreenStake is a 100% biodegradable landscape/turf stake replacing the use of metal pins. After the GreenStakes serve their function they disappear leaving no trace. This is unlike metal pins which when used present a safety hazard to people and animals and

then slowly rust over many years contaminating the ground.

MossOff is a chemical-free moss and algae remover, which is completely safe to people, animals, other plants. It works by coating the moss with an invisible, biodegradable micro

coating that prevents the moss from drawing moisture or nutrients from the environment. There are no safety measures needed before, during or after treatment, as is the case with biocides used to treat moss and algae.

GreenSax is a compostable bin liner for lining food and garden waste bins and when full can be disposed of with the waste. The liners contain no petrochemical-based plastics, break down

completely within days during the composting process and have no negative impact on the compost end product.

Greenpower is helping to create new and sustain existing employment in Ireland in engineering, manufacturing, marketing and distribution. These jobs and the future growth of the business are built on a solid foundation, where demand for 'green' products is expanding.

RADISSON BLU ST HELEN'S HOTEL



Environmental Performance (Tourism Sector) category

The Radisson Blu St Helen's Hotel occupies a stately home constructed in 1750 and renamed St Helen's in 1851 by Viscount Hugh Gough. With an additional purpose built wing adjoining the house, the Radisson Blu St Helen's Hotel is now a 151 room 5-star hotel with a four acre formal garden and extensive guest facilities. The hotel holds a Gold Award from the Green Hospitality Programme.

The Radisson chain has adopted strong environmental sustainability policies. Monthly reports are submitted to head office on energy consumption, water use and waste generation. Environmental audits are prepared every 6 months and an annual status report including an environmental status report is also generated. The policies and

programmes are implemented at a local level by an employee based Green Team. Among the team's accomplishments are:

Waste Prevention

- ▶ Utilising a colour coding system for waste bags to overcome language barriers as to where different materials go for recycling or disposal.

- ▶ Utilising a compostable waste bag that can decompose in 3 weeks despite higher bag costs (75 cent per unit versus the regular plastic bags at a cost of 7 cent per unit taking 1,000 years to decompose).
- ▶ Reducing waste sent to landfill from 145,530 kg in 2008 to 28,644 kg in 2010.
- ▶ Adopting a further waste reduction target of 5% for 2011

Water Conservation

- ▶ Reducing water consumption from 483 litres per guest night in 2008 to 398 litres per guest night in 2010. This was achieved by:
 - ▶ Adopting a towel and linen policy allowing stay over guests to choose to reuse towels and linens.
 - ▶ Changing cleaning practices for the bedroom and using 6 litres less of water in the cleaning of each bedroom - this practice continues.
 - ▶ Installing a Flush Wise System in all guestrooms and throughout the balance of the hotel. The system reduces the water consumption from 9 litres per flush to 6 litres per flush in the toilets and from 15 litres to 6 litres in the taps.
 - ▶ Changing showerheads

reducing water use to 8 litres per minute for fixed showerheads and 7 litres per minute for handheld showerheads.

- ▶ Investing in PIR sensors for public toilets so urinals only flush hourly versus every few minutes.

Energy Savings

- ▶ Investing in a Combined Heat and Power (CHP) system to generate electricity while using the waste heat to warm the hotel interior.
- ▶ Fitting all bedrooms with energy efficient bulbs. In 2011 a further €8,500 was invested in upgrading lighting to LED energy saving light bulbs in all public areas and meeting rooms.
- ▶ Installing 5 sub meters (on the kitchen hot water, bedroom hot water, heat exchanger return and the gas line) to monitor consumption figures. This "smart metering" ensures the best compliance from the building management system (BMS).
- ▶ Changing energy supplier to Energia to monitor changing energy consumption every 15 minutes. Changing to Flogas to monitor daily gas consumption.

Engaging Communities in an Environmental Project category

Established over 300 years ago, RSA is a leading general insurer operating in over 130 countries. In Ireland, RSA provides property, liability, home, motor, annual travel and special commercial insurances for individuals and businesses. RSA employs over 750 staff in Ireland and maintain their main office in Dundrum.

RSA believes it is important for employees to help solve problems in the community. RSA has a committee of Charity Champions (staff) who have led company efforts resulting in RSA staff assisting over 60 different charities. RSA also has a Facilities Team comprised of employees who lead company environmental efforts to save energy, reduce water consumption and increase the reuse and recycling of waste.

These two groups have co-operated to involve RSA staff and the community in addressing environmental issues.

Environmental Performance initiatives undertaken in the last year include:

1. RSA have partnered with World Wildlife Fund (WWF) to encourage action among international policy makers on climate related risks through

joint research and emerging risk briefings. Earth Hour is the WWF public campaign to get people to turn off their lights for one hour. It is a symbolic campaign intended to raise awareness about climate change and show individuals can make a difference. To support the initiative RSA carried out a number of activities focusing on reducing energy, water, waste, paper and travel impacts. It also encouraged employees, customers and suppliers to sign up to Earth Hour and support the campaign.

2. RSA arranges every month for staff to fill Enable Ireland bags with unwanted clothes and bring them to work. Over 200 bags were given to Enable Ireland in 2010. Textiles were sold for reuse or recycling. A typical monthly

event generates €650 in sales proceeds to benefit Enable Ireland. When new furniture was purchased for the RSA Galway Office, the old furniture was donated to the Galway Simon Community, ISPCC and the Cope Foundation. The Simon Community used the furniture when re-locating its office and the surplus was sold in its Furniture Shop to raise funds for housing projects.

3. RSA assisted Airfield by providing volunteers to assist in gardening projects at inner city schools and staff members also went to a local school to discuss the importance of the environment with them. RSA partnered with Rehab to refresh the Sensory Garden for the Autism Service in Offaly. A sensory garden includes plants to touch, flowers to see and smell,

birds to listen to, fruits and vegetables to taste. It is a safe place to move and learn how to care for plants and grow foods, where children who have autism and other special needs can connect with the natural environment.

4. Each year, RSA Day recognises exceptional contributions from employees in volunteering and fundraising activities. Employees who give the best Green Ideas that can be implemented across the Group are also recognised. In 2011 staff were set a challenge to volunteer for charities involved with environmental protection and to come up with Green Ideas. The winners of this challenge will win a trip to the Arctic to see polar bears and the effect climate change is having on the planet so they can pass the message on to the rest of the staff.

SPRING GROVE SERVICES



Water Conservation category

Spring Grove Services is a Textile Rental Company providing a wide range of floor care, washroom services, work wear and linen, which is delivered by a nationwide fleet of 90 vehicles. Spring Grove Services is a wholly owned subsidiary of the Davis Service Group Plc, which operates over 140 commercial laundries across Europe. Currently employing 600 people in Ireland in its network of laundries, distribution depots and offices, Spring Grove Services has 450 customers in Dún Laoghaire Rathdown and approx 6,000 customers nationally. The Stillorgan facility supplies 60,000 work wear garments, 20,000 dust mats and 15,000 roller towels every week for industrial, hospitality, office and retail use.

In 1992 when it's Ballsbridge matt and roller towel production unit moved to Stillorgan, Spring Grove Services reorganised the process and made a number of investments. A water recycling and filtration unit was installed, two heat recovery exchangers were fitted to the effluent stream to preheat incoming cold water, a stack economiser was fitted to the boiler and a vent condenser was fitted to the steam tank. The installation of heat recovery technology has resulted in a 50% reduction in energy consumption, with subsequent reduction in CO₂ emissions due to the preheating of the incoming cold water and heat

extraction during each step of the process prior to the dirty water being discharged to drain.

State of the art efficient continuous batch washers are used to reduce water consumption by 50% compared to traditional washers. The water from the roller towels is reused for two washings of the dust mats with only the final wash using fresh water.

The use of recycling technology has reduced water consumption at the Spring Grove Services Stillorgan facility from 58,379 litres in 2009 to 42,924 litres in 2010 with the consequent reduction in costs.



THORN ENVIRONMENTAL LTD

Special Merit category

Thorn Environmental Ltd (Thorn) is a packaging supplies producer that specialises in environmentally friendly waste packaging alternatives such as refuse sacks, bin liners, films and wraps. They are brand owners of "earth2earth", "DuraSack", and "Bungee" refuse sacks and liners. Thorn was set up in 1998 to take advantage of changes that would be happening in Europe and Ireland in line with Local Agenda 21 and Europe's Environmental Action Programs. Thorn had previously been trading as Thorn Packaging Ltd but was drowning in a sea of price based commodity goods.

The company's ethos is reflected in all of Thorn's products, which are developed using the minimum amount of ethically sourced raw materials. Thorn uses co-extrusion in order to reduce the amount of film required for each bag without sacrificing strength. Boxes are made specifically for each product so that there is no waste of space. This reduces shipping and storage space and minimises the transport impact on the environment.

Thorn's staff numbers are low at five employees; however outsourcing of many of its business functions supports employment in manufacturing, logistics, and graphic design companies. All staff have a keen interest in environmental issues, which are at the forefront of all business

decisions. Stationery is made from recycled materials and thinner, recycled, unbleached paper is used for printing. Post goes out in "direct recycled" envelopes, which are made directly from map scraps.

At present, Thorn is one of the largest producers of refuse sacks and bin liners sold in Ireland, and they are continuously growing in the UK. Their growth has been due to constantly trying to improve products through the use of technology, legislation, and innovation. Thorn's targeted customers are large janitorial supplies companies, catering supplies companies, contract cleaning companies, multinationals and other ISO 14001 companies and County Councils.

To comply with Waste Management (Food Waste Regulations) 2009, Health and Safety Guidelines and Hazard Analysis & Critical Control Point (HACCP) requirements Thorn developed a brown bin and bag system for use in hospitals, nursing homes, hotels and the catering sector. The pedal operated, 45

litre bin is designed so that, in the unlikely event of the liner breaking, it will retain all liquids and food waste without spilling. As a result of providing this solution to the segregation of food waste Thorn's sales in Ireland grew by 20% last year in the midst of a recession.

TWOMEYS SUPERVALU



Environmental Performance Retail Sector category

SuperValu is a chain of 233 independently owned supermarkets located across Ireland. Twomey's SuperValu is a supermarket selling a full range of food and grocery products in Deansgrange. SuperValu stores operate under a distributorship based partnership with the Musgrave Group.

Twomeys SuperValu puts a lot of work into reducing costs in regard to dry and wet waste, electricity and water usage in the shop as they would be a high cost of overall expenditure within the daily running of the supermarket. Twomeys SuperValu is constantly looking at ways of saving money in regard to these areas for example a large wheelie bin compactor was recently purchased to compress the waste in the bins. This resulted in reducing the number of bins to be collected to 3 bins picked up once a week instead of 3 bins picked up 3 times a week. All

cardboard and plastic is recycled and all food waste is also recycled and used for pet food.

Twomeys SuperValu constantly reviews its electricity, water and paper towel usage and encourages all staff to monitor and reduce consumption where possible. Management has meetings with key staff two times per year to get fresh ideas as to where environmental savings can be made.

The judges found it heartening to see that small traders recognise the benefit in participating in

environmentally friendly behaviour as a way of controlling costs. Twomeys SuperValu is a leader in its sector which has used the business supports available through the Musgrave parent group to improve its environmental

performance. Twomeys SuperValu is committed to network with other organisations in the county who are implementing environmental best practices as it's participation in the EnviroCom Awards demonstrates.

VODAFONE



Waste Prevention category

The Vodafone Group is the world's leading international mobile communications group with approximately 350 million customers. In Ireland Vodafone is the leading total communications provider with over 2.2 million mobile and fixed subscribers, employing approximately 1,300 people in Dún Laoghaire Rathdown and Dundalk; almost half of whom work in customer care.

Vodafone Ireland is committed to being a sustainable business that is dedicated to using its resources to make a positive contribution to society. Particular environmental emphasis is placed on responding to the issue of climate change, reducing carbon emissions, offering products and services with beneficial social impact, conducting business in a responsible way and investing in societal projects on a local level.

Background

Vodafone's current billing paper has 70% post consumer recycled

content and has achieved the full chain-of-custody certification by the Forest Stewardship Council. Vodafone consumes the equivalent of more than 7,000 trees per year or one tree for every 72 customers on a paper bill.

The Project – "Goodbye paper bills, hello trees."

In February 2011, Vodafone launched a campaign called, "Goodbye paper bills, hello trees" to promote paperless billing among its customer base. For every 72 customers switching to paperless billing, not only would a tree be

saved, but Vodafone pledged to plant an additional tree at one of four Tree Council of Ireland-approved rural woodland areas. The goal was to persuade enough customers to switch to paperless billing to save and plant 5,000 trees, thereby reducing CO₂ emissions by 500 tonnes.

The Results

In six months the number of customers using paperless billing went from 20,000 to more than 115,000 customers. This resulted in the saving and planting of approximately 1,600 trees, reducing CO₂ emissions by 100 tonnes. The "hello trees" tab has become the second most popular on the Vodafone Facebook page with around 5,000 views a month. Customer feedback is positive. For example a Facebook user wrote: *'Just did it, simple and quick. And if it makes a difference to our environment it is well worth it'.*

Future/Ongoing Plans

Vodafone is committed to this initiative and intends to continue the "Goodbye paper bills, hello trees" as long as customers remain on paper bills. Future promotion of the initiative will involve engaging employees to be ambassadors of the programme and an updated social media "Goodbye paper bills, hello trees" campaign over the coming months to further engage customers.

We wish to express our **appreciation** to the following sponsors for generously supporting this evening's environmental awards:



Best Examples of Waste Prevention & Water Conservation



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