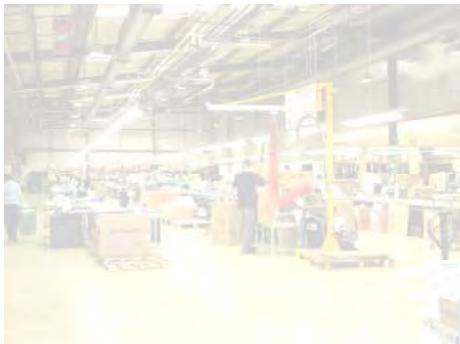




Sharp Manufacturing Company of UK “SUKM”

**Welcomes “Inpart”
30th June 2010**

**Philip Care
DGM Marketing**



SHARP

SUKM

**‘Team Europe’ working with
‘Local Manufacturing’ to strengthen
business opportunities and presence
with ‘European products’ for
‘European markets’**

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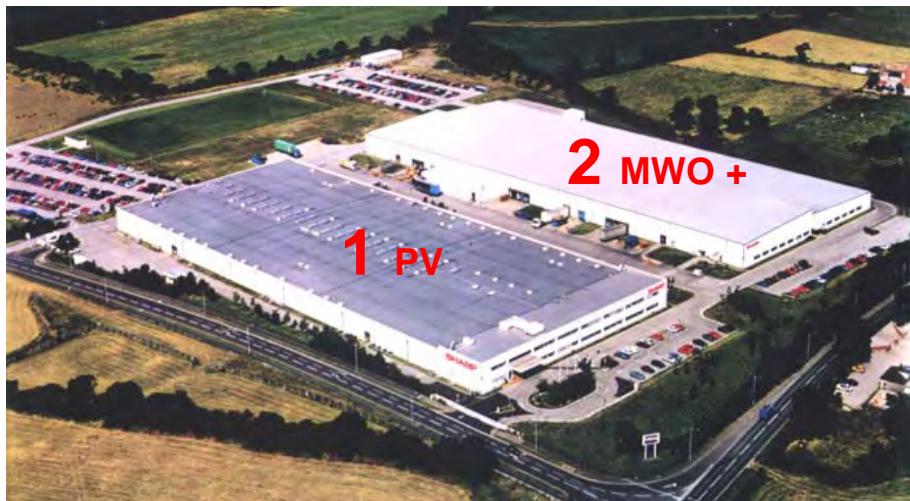
Phase 1 built in 1985 with an area of 15,760 m²

Phase 2 built in 1988 with an area of 17,022 m²

Phase 3 built in 1987 with an area of 5,334 m²

Total site area of 182,459 m² (which includes buildings and land)

Workforce approx. 800 including agency staff



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SUKM History



- **First factory opened in 1984**
- **Production of VCR in 1985 ~ 2003**
- **Production of Microwave Oven in 1986, ongoing**
- **Production of Plain Paper copiers 1987 ~ 1994**
- **Production of Electronic Typewriters 1987 ~ 1997**
- **Refurbishment Area expanded 2003**
- **Production of Solar P.V. Modules in 2004**
- **Bespoke facility for Returns & Refurbishment in 2006**
- **Sales Turnover approx. £400M / €445M**

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NEW BUSINESS GROUP influencing existing structure

SOLAR PV

MICROWAVE OVEN

REFURBISH & RECYCLE



“Best” use of facilities and available free space

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Business Model

- SUKM is the responsible European factory for
 - Solar PV
 - Plasma Cluster Ion
 - LED Lighting / Solar Amenity Lighting
 - Advanced cooking products (SuperHeated Steam)
- ‘European’ Products for ‘European’ Markets – LOCALISATION including Product / Manufacturing Planning
- Sales to Sharp subsidiaries, OEM customers and in some cases direct
- Self promotion including own website www.sharpmanufacturing.co.uk
- Coordination between ‘Japan’ and ‘Europe’
- Shortened supply route and lead-times

Awards

SUKM awards won / achieved to date

- Queens Award for Export, 1990
- First ISO 9001 registration 1991
- British Safety Council Sword of Honour
- Wales Quality Award (won four times)
- ISO 14001 registration, 1995
- ISO 9001:2000 registration in 2003
- ISO 14001:2004 registration in 2005
- Green Apple Award in November 2006
- Green Heroes Award in June 2006
- Wales Business & Sustainability Awards In October 2007 & 2008
- R-CATS European Winner November 2009

Green Apple Award in November 2006



- The Green Apple Environment Awards were established to recognise, reward and promote environmental best practice around the world.
- Sharp won the award for environmental best practice with a RoHS Compliance Project
- The Green Apple Awards was one of the first campaigns to be accepted as an RSA* accredited feeder scheme into the European Business Awards for the Environment.

* Royal Society for the encouragement of Arts, Manufactures and Commerce

Green Heroes Award in June 2006



- The Northwest Business Environment Awards is the most prestigious regional event in celebration of environmental business excellence. Companies compete to be crowned as one of the region's 'green heroes'. T
- Sharp won the award for acting as an exemplar of best environmental practice in the 'Green Book' an internationally published reference book of best practice on the environment.
- The aim is to encourage other companies to consider the impact their business is having on the environment. In short, the awards aim to keep the environment on the business agenda and help embed environmental business excellence throughout the region's business community.

Wales Business & Sustainability Awards

In October 2007 & 2008

- The Wales Business & Sustainability Awards are prestigious awards designed to recognise and promote environmental and sustainability best practice within Wales.
- Sharp won the award for our continued efforts on sustainability in manufacture (reducing energy use, material consumption, water usage, wastes and emissions, waste to landfill etc.)



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50KW In-house PV System



- Installation Date 29/09/09
- KWh generated in eight months 20.7 MWh with four summer months to go!
- Expected annual saving approx 35 – 40 MWh per annum
- Expected annual saving approx £16,000 per annum (with FIT allowance)

Solar Education Centre

Solar Education Centre officially opened 5th March 2010

The centre was opened by:

Carwyn Jones AM, First Minister

Mayor of Wrexham, Councillor Arwel Jones

Mr Sasaoka – CEO Sharp Europe

Mr Igarashi – CEO SUKM



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Solar Education Centre

Background

It was identified that while there is a growing interest in renewable energy there was a lack of understanding about Solar and also limited awareness that Sharp are world leaders in Solar technology development.

Aim

- ❖ Get young people interested in the manufacturing environment and nourish their interest in solar power
- ❖ Educate the local community on the importance of solar power and provide information on the Governments new Feed In Tariff (FIT) from 1st April 2010
- ❖ Promote the use of Sharp panels to current solar installers, builders and architects
- ❖ Provide installation training to improve the local communities skill base, increasing employment opportunities
- ❖ Promote Sharp's product development including Solar modules, Solar LED Amenity Lights and Plasmacluster Ion Generators (leading new technologies)

Solar Education Centre



- ❖ Experience the world of solar and see how solar energy is the future
- ❖ Raise awareness of the benefits of solar



- ❖ Explore the Solar Workshop
- ❖ Enjoy the interactive quizzes

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Solar Education Centre



- ❖ History of Sharp
- ❖ Past and future developments



- ❖ Solar Cell process
- ❖ Breakdown of a solar module

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Solar move from 'Commodity Trend' to 'Niche Added Value'



PV Roof Tile



Swarovski Solar Car

Solar rechargeable light



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Target markets for 60W module

- Electrical Retailers
- On-line specialists
- Road sign manufacturers
- Councils with traffic management systems / parking meters
- Leisure Industry – kit solution including battery controller / conditioner



36 half cells

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Target markets for PCI (Plasma Cluster Ion)

A revolution in air treatment
..... proven to be effective against
suspended viruses and microbes

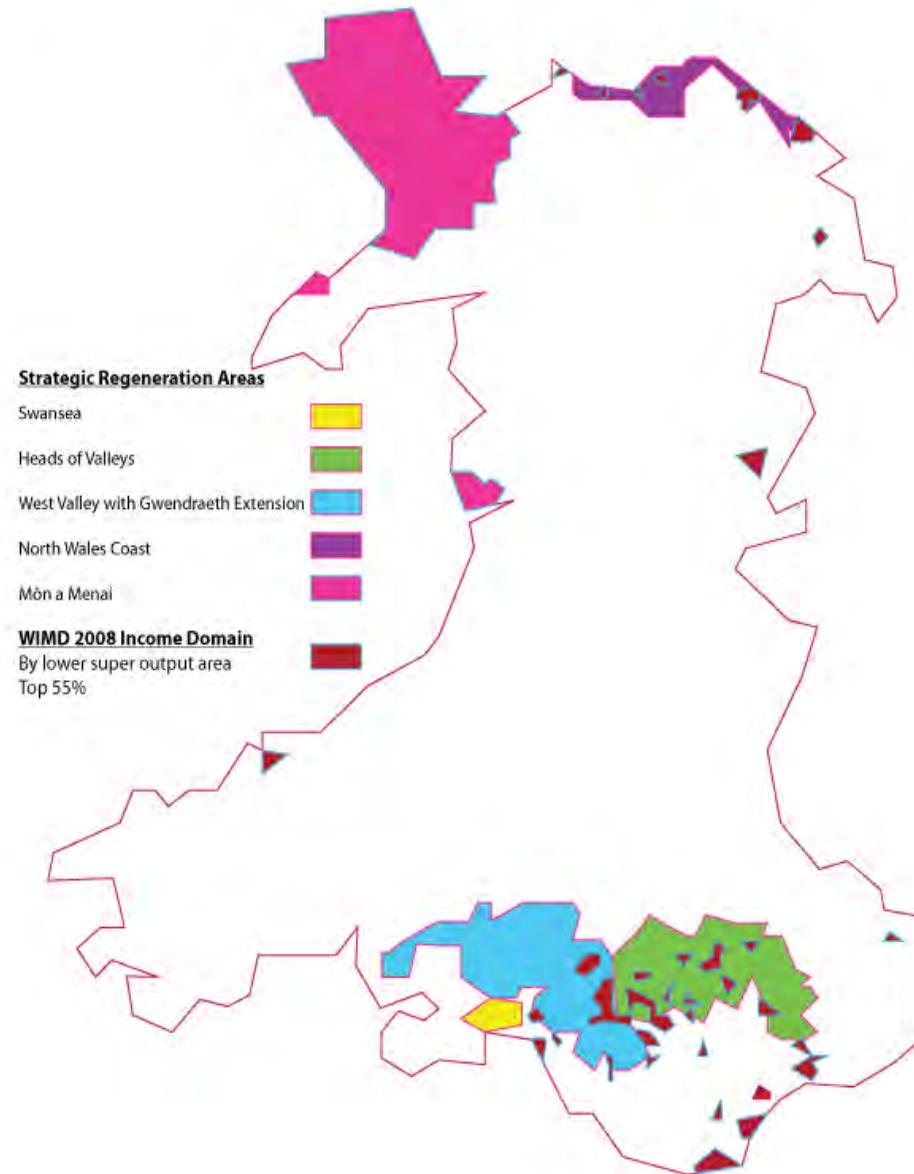
- Car industry
- Local Health Authorities
- Home
- Business Community
- Aero Industry
- Hotel & Leisure Industry



Sharp and Arbed

- Large scale energy efficiency and renewable energy programme
 - WAG departments working together
 - Est. £350M over the next 2 to 3 years
 - Mixture of funding
- 5 Strategic Regeneration Areas

Wales Strategic Regeneration Areas with
WIMD Income Domain most deprived



The 5 Areas

- Swansea
- Heads of the Valleys
- West Valleys + Gwendraeth
- North Wales Coast
- Môn a Menai

Sharp and Arbed

- Meet the buyer events
 - Heads of Valleys
 - North Wales event cancelled
- Active in proposing solutions for solar PV installations and solar LED amenity lighting

Sharp

- Focus on renewable energy and housing / area renewal
- Regeneration of the current environment
- Linked to training and job creation

MODELS

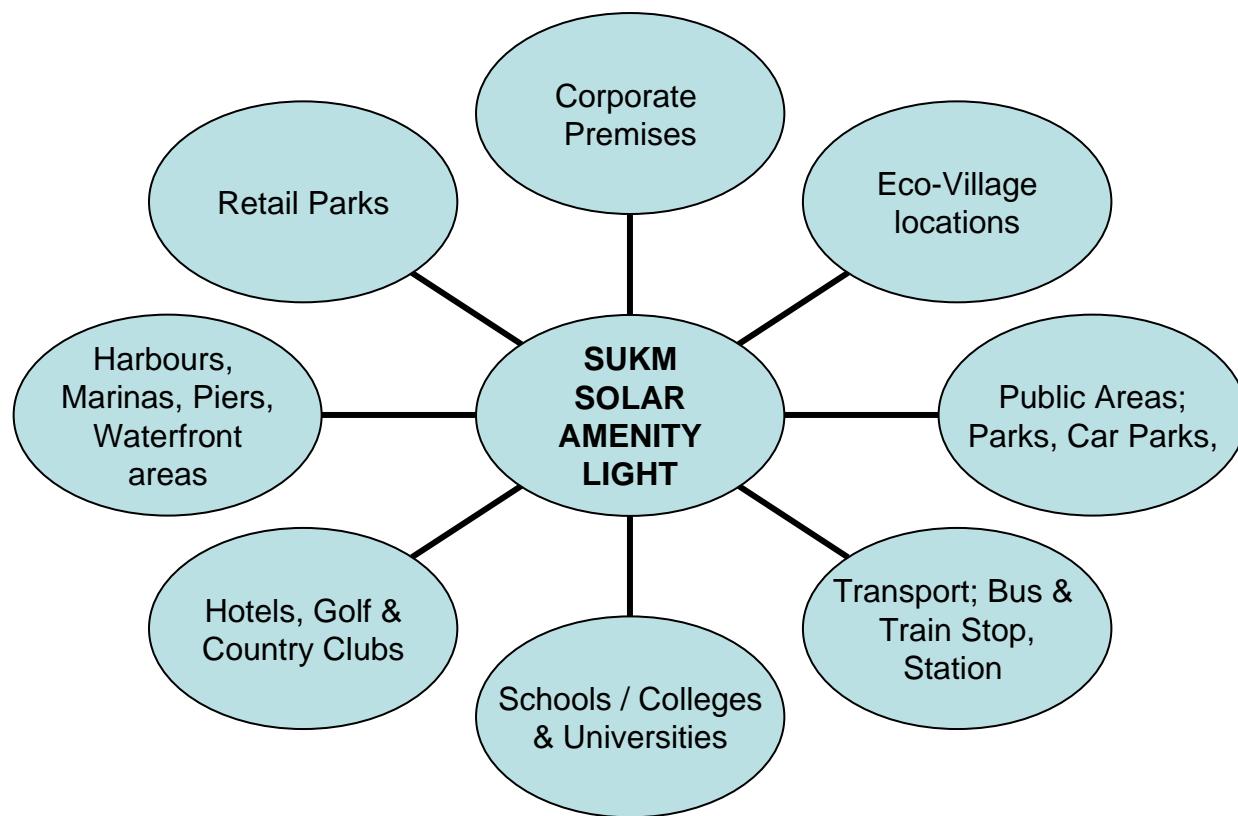
LN-LX1
Solar panel
120W x 1 panel
32W equiv



LN-LW3A1-S
Solar panel
80W x 2 panels
32W equiv

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Markets



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ENVIRONMENTAL ADVANTAGES

- uses 100% renewable solar energy
- efficient LED light source, no 'sky-glow', less light pollution
- no cabling or trenching protects nature
- the LED head does not contain hazardous substances such as mercury and other harmful chemicals
- no cabling or trenching, protects natural environment from intrusive works
- LED lighting does not attract insects, minimises interference with local wildlife
- will increase awareness of solar-power potential in the area

PERFORMANCE

PERFORMANCE ADVANTAGES

- zero power consumption from National grid
- superior LED technology offers the highest levels of brightness in the industry
- high efficiency LED's can last up to 10 years
- bright, uniform surface-emitting lighting
- wider illuminated area reduces number of lamps per kilometre (LN-LX1)

PRACTICAL

PRACTICAL ADVANTAGES

- zero utility charges
- no grid connection required
- minimal maintenance required
- installation costs reduced
- easy to install, no cabling or trenching
- ability to light previously difficult unlit areas, such as rural villages, bus stops etc.
- contemporary design
- Low voltage - 12v

LIGHTING

TYPICAL LIGHTING

Short Bulb Life:

- approx 10,000 hrs

**Contains hazardous substances:**

- fluorescent, sodium & mercury lamps have high disposal costs

Efficiency:

- Brightness of fluorescent lamps deteriorate by half at 0 °C

Wavelength:

UV rays attract bugs which makes the light fixtures dirty, increasing frequency of maintenance, increasing costs

Poor lighting control:

Bulbs cannot be precisely controlled meaning that the life of bulb is shortened

SHARP LED LIGHTING

Long Bulb Life:

- approx 40,000 hrs

**Contains NO hazardous substances:**

- Mercury free. No hazardous substances reduces disposal costs considerably

Efficiency:

Luminance efficiency remains stable even in low temperature

Wavelength:

LEDs do not emit UV rays. Fewer bugs are attracted to light, keeping it cleaner for longer minimizing costs

Advanced lighting control:

Life of bulb is maximized as light is precisely controlled to switch on, off or enter energy saving as required throughout all seasons

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Installation in Wrexham



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Whitegate Industrial Estate



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Sharp Returns & Refurbishment Centre

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Returns & Refurbishment Facility Overview

Factory Outlet Shop → “EcoHouse Shop”

We have a successful Factory Outlet Shop selling graded stock to the public.

We also have ‘Staff Specials’ exclusively available to Sharp personnel



A new ‘In Business’ Centre has been established within the outlet Shop, specialising in office appliances, complementing our range of consumer electrical goods

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THANK YOU

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