



SEEDA





















Sustainable Business Awards for the South East 2004

Case Study - SP Systems Ltd

Company Background

SP Systems (SP) is a composite materials company with 500 employees on the Isle of Wight and 200 more in Spain, Australia and North America. It specialises in high performance materials for the wind energy, marine and automotive markets. In 10 years, turnover has grown from £6 million to £70 million. The company attributes much of this success to its involvement in the wind energy market, supplying 50% of composites used by the European wind energy sector.

Summary of Key Achievements

- Changing from container delivery of liquid materials to bulk tanker delivery eliminated the need for numerous 200 litre drums in 2003   
- 1.6 million m² of process paper were reused in 2003 – a 170% increase on 2002 levels alongside a 30% production increase   
- Reuse and recycling of wooden pallets, plastic, cardboard, office paper and printer cartridges has further reduced waste    
- Introduction of plastic liners for steel product drums will reduce waste per drum from 21kg steel to 1kg plastic   
- An energy efficiency study and associated improvements reduced electricity consumption by 20% between 1999 and 2003   
- Sponsorship of local sports teams and an 'Awards for Excellence' programme supports the local community 
- SP insists on sound environmental management from suppliers, supported through supplier audits 
- Sustainable transport solutions are promoted, including car sharing, a minibus service and cycling  



Courtesy of Gamesa Eólica

SP credits its rapid growth to involvement in the wind energy sector

SP's main products are:

- Structural prepregs – a variety of carbon and glass fibre composite materials, impregnated with epoxy and supplied ready for curing at the customer's site
- Liquid epoxies – used for resin infusion and laminating
- Structural adhesives
- Dry reinforcements and core materials

Sustainability Initiatives

ISO 14001, ISO 9001 and OHSAS 18001 certified management systems are central to the management of SP. Examples of sustainable initiatives and achievements can be found throughout SP's processes, designs and products, including:

- Process optimisation to minimise cure times and simplify production has improved energy efficiency
- Kitting and nesting techniques have reduced material wastage in manufacturing
- Replacing spray coating with film coating, reducing emissions and improving health and safety standards

Contribution to a Sustainable Economy

SP recognises its role in the local community as one of the largest private employers on the Isle of Wight. The company has established an 'Awards for Excellence' scheme, in which Island residents are rewarded for outstanding achievements. The company gym is also made available to local sports teams and individuals. SP sponsors an award for excellence in science at a local school.

SP uses local suppliers and contractors, wherever possible. The company works in partnership with these local suppliers to develop their own systems for health, safety and environmental management auditing of larger suppliers.

KEY





Plastic liners will reduce the waste per product drum dramatically



Bikes are provided for onsite transport

Enhancing Environmental Quality

Waste reduction has been achieved through three core principles: reduce, reuse and recycle:

- SP has increased proportions of liquid raw material arriving by tanker in recent years, reducing the quantity of 200 litre drums requiring disposal as special waste
- Used product drums contain residues, making recycling difficult and costly. A new initiative will see the introduction of plastic liners for product drums enabling them to be reused and recycled, reducing the amount of waste per drum from 21kg of steel to 1kg of plastic
- Coated paper is used as backing material in prepreg production. As it is not part of the product, it represents a significant waste stream. In 2002, an initiative was launched to enable operatives to re-roll paper for reuse. Once it has been used twice, the paper is no longer suitable for the prepreg process, so it is recycled into backing paper for labels. In 2003 1.6 million m² of coated paper were reused, saving £250,000 in raw material costs, while 414 tonnes of used paper were recycled, saving £18,500
- Cardboard packaging has been transformed from waste to product, thanks to a cardboard baler. A baling trial over several weeks produced six tonnes of baled cardboard, worth £240. Disposal of the same quantity to landfill would cost £270. This trial convinced SP to invest in its own baler. Since May, 52 tonnes of baled cardboard have been produced, saving £2,500 in landfill costs. Similarly, waste LDPE plastic packaging is baled and recycled – so far this year, six tonnes of LDPE have been diverted from landfill, saving £270
- 33% of waste was recycled in 2003: 8,290 wooden pallets, weighing 265 tonnes, saving £12,500 in disposal costs; and 4,560 storage drums, diverting 96 tonnes of waste from landfill. In addition, aluminium cans and printer cartridges are collected and sent to charity recycling schemes
- SP uses recycled materials where possible. Prepreg materials are supplied on large rolls – plugs are used to provide strength at the ends of these rolls. New bungs are being introduced, made of 15% wood meal and 85% polypropylene, both of which are recovered materials. These bungs are lighter, cheaper and stronger than the current woodchip alternative and can be reused or recycled. This change is expected to save £3,500

Energy efficiency is important to SP. Energy consumption per unit product was reduced from 0.562 kWh in 2002 to 0.518 kWh in 2003 thanks to 'lean manufacturing' initiatives.

Employees are encouraged to use sustainable transport:

- Operates minibuses to and from its base, including a shuttle service to the mainland ferry
- Promote car sharing
- Encourages cycling to work and around the site providing bicycles for site use, constructing a link to the Island's cycle network, reducing cycling times to work for many employees. Secure cycle storage and showers have been provided as further incentives

Improving the Social Wellbeing of Stakeholders

The Integrated Learning Centre (ILC) at the company's St. Cross site provides information and tools to support professional development of employees – since it opened in 2001, 73 employees have gained 'Key Skills' qualifications, while 18 have gained NVQs. The ILC won a 'Commitment to Lifelong Learning' award in 2003 and was nominated for the National Training Awards 2004.

SP provides work placements for local students and in September launched its apprenticeship scheme, offering a paid apprenticeship to school leavers, with day release to study for City & Guilds Engineering Operations qualifications.

A number of employees of SP have excelled in sports, competing at national and international level. SP supports these employees, providing a company gym and making allowances for them to compete in events.

SP conducts internal and external communications, to promote awareness of sustainability issues and improve stakeholder relationships. Internal communications include the Environmental and Lean Manufacturing Bulletins. External communications are conducted through the company's website and supplier seminars.

SP is part of the SEEDA Composites Cluster, which is led by Paul Rudling, SP's CEO. The Cluster aims to promote the Isle of Wight as a centre of excellence in composite materials and provides a forum for companies to share best practice and resources and build partnerships. The companies in the Cluster are jointly supporting a specialist composite technology course at the Isle of Wight College.

Company Contact

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