

## Case Study - EADS Astrium

### Company Background

EADS Astrium, Europe's No.1 satellite company and a world leader employing 1,200 people, has an impressive track record in the space business, earth observation, space science programmes, telecommunications, ground systems, navigation and military programmes. From the manufacture of the smallest satellite microwave component to the integration and environmental testing of complete spacecraft, from research and development laboratories to anechoic chambers, EADS Astrium has the facilities to provide a total capability to meet the challenges of space. This hardware includes earth and weather monitoring satellites used to obtain scientific data highlighting environmental activities. All critical processes are carried out in clean rooms certified to the highest space industry standards, and the entire company is certified to ISO 9001, ISO 14001 and EMAS.

### Sustainability Initiatives

EADS Astrium took an initiative in 1999 to develop an Environmental Management System (EMS) that would not only improve its activities with regard to the environment but also ensure compliance to ISO 14001 and EMAS standards. The EMS introduced a number of best practices, processes and savings and as a result commendations were collected.

All environmental initiatives and programmes are driven from its Portsmouth location. The success of these have been recognised and are now being deployed across Europe using the expertise residing at this site.

### Key Achievements

- Aspect document developed and produced which lists all environmental risks, associated assessments, and the processes involved, as well as highlighting activities that had significant environmental impact and required immediate action. External auditors have used the document as an example of best practice.
- Introduction of radical waste streams which took recycling from zero to 65% of waste generated.
- Reduced chemical inventory over the last three years from over 10,000 listed chemical items to less than 1,500. This has had many benefits ranging from a huge risk reduction on the amount and nature of environmentally damaging chemicals held on site, down to business payback on the chemical supply chain.
- Introduction of an energy database.
- Invertors have been placed into electricity supply lines feeding the clean room air conditioning fans, resulting in a 30% saving.
- Publicity material is available to increase employee's environmental awareness.



*The Payload Equipment Bay of the European environmental satellite Envisat. Since its launch in February 2002 the Astrium-built satellite has been delivering a wealth of data about climate*

*change, change in the oceans, the polar ice masses, the global vegetation cover and the composition of the atmosphere*

- Astrium is currently taking an active role in investigating the implications of the Waste Electrical and Electronic Equipment (WEEE) and Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directives within the company and the space/aerospace industry in general.

### Waste Minimisation

The introduction of radical waste streams across the entire UK company, took recycling from zero to 65% of the waste generated. EADS Astrium is currently investigating further waste streams and improvements to its recycling programmes using input from both employee and industry networks. Recycling initiatives include:

- White paper is recycled into paper hand towels and low grade writing pads.
- Cardboard is reprocessed into new cardboard products.
- Plastic cups are reprocessed into a range of items including pencils and rulers by Save-A-Cup.
- Aluminium cans are delivered to Alcan, where they are manufactured into new cans. Funds raised are given to the Wessex Heart Foundation.
- Printer/toner cartridges are sent to Return-A-Toner for recycling/reuse. Funds generated are donated to the Great Ormond Street Children's Hospital.
- EADS Astrium regularly upgrades IT equipment. Redundant PCs are sent to a recycler who re-sells the components. The printed circuit boards are sent for material reclaim.
- Redundant mobile phones are sent to a company called EMC who reuse and recycle all parts including batteries and car kits. Funds generated are used to perform environmental projects with schools.

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- Other electrical equipment is sent to a company called ISIS that processes the parts down for material reclaim.
- Employees are encouraged to recycle Christmas cards - this activity is carried out with Tesco and the Woodland Trust.

### Product Life Cycle

EADS Astrium is currently introducing a process, backed up by internal audits, to ensure that products, wherever possible, have considered Design for the Environment, and is currently reviewing the effects of WEEE and RoSH Directives on its products and processes.

### Process and Programmes

EADS Astrium has reviewed a number of its processes highlighted in its Aspect document and has made significant improvements. This has benefited both the environment and the business. These include:

- Removal of a five-ton solvent tank used for the honeycomb cleaning process. The cleaning chemical concerned is potentially damaging to people and the environment. The honeycomb is now procured already clean. This change has saved the business £84,000 pa and also benefited the environment. Similarly, a change in the chemical process saved the business £78,000 pa and again benefited the environment.
- Titanium screws that were used for temporary fixings and then disposed of have been replaced by stainless steel tooling screws that are reused. This has saved £15,000 per satellite (£15 per screw) and also reduced the use of non-replenishable resources.

### Energy Efficiency

EADS Astrium has monitored and logged its energy use across all sites. It has further introduced meters on the Portsmouth site. Invertors have been placed into the electricity supply lines feeding the clean room air conditioning fans, resulting in a saving of 30%.

The company is investigating how it might use sustainable energy.

### Social Responsibility

EADS Astrium over the last two years has been involved in and supported various community/school projects. These include:

- Sponsors of the Evening News 'We can do it Campaign' Environmental Award.
- Sponsors of the Evening News Business of the Year Award for Environmental Achievement.
- Worked with:
  - Springfield School on an environmentally designed outdoor classroom project, promoting good environmental practice.
  - Milton Park School on an environmental learning project.
  - Portsmouth Grammar School on the green car challenge project.
- Presented to St John Ambulance members on environmental issues.
- Active member of SIGNPOST Green Travel Forum.
- Participated in the Portsmouth cycle to work event 2003. This was taken further when Astrium linked up with the British Heart Foundation and sponsored three employees to cycle between the three UK sites, a total of 564 miles.
- Developed and organised an Environmental Roadshow to raise environmental awareness amongst employees.

- Involved in the Baffin's Pond Environmental Area project.
- Assisted St Francis College with sponsorship and donating scrap material for a recycled fashion show project.
- Increasing local awareness of the company through management sponsors, local champions and neighbourhood engineers.

### Employees

Astrium has implemented a number of health awareness initiatives. These include:

- Immunisation advice for business travellers.
- In-house health check express program which is available to all employees - it assesses coronary heart disease factors and a risk report is provided.
- Physiotherapy available weekly.
- A number of after work health clubs are available.
- The Employee Assist Program provides a confidential service to all employees.

### Supply Chain Management

All of Astriums suppliers are required to complete a questionnaire. The UK Environmental Engineer follows up any deficiencies and reviews the results every quarter.

All contractors employed must read, understand and comply with the Health, Safety and Environment information in EADS Astrium's contractor's handbook.

### Transport

EADS Astrium has introduced a minibus that runs between the Portsmouth and Stevenage sites. This has reduced the number of single occupancy cars doing the same journey and hence the amount of emissions generated along with the use of non-replenishable resources.

It has also introduced extensive use of video conferencing across the UK and internationally.

EADS Astrium is working with Portsmouth City Council on a Green Travel Plan to encourage sustainable transport rather than individual vehicles. This is in the early stages of development.

Showers are available for employees who cycle to work.

### Innovations

EADS Astrium continues to design, develop and manufacture Earth Observation Satellites, which monitor changes. The latest and largest of these is ENVISAT which was launched in March 2003 as Europe's satellite for Environment and Climate protection.



Sustainable Business Awards for the South East 2003

### Contact

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