



## Case Study

### BAE Systems Naval Ships

This site situated on the River Clyde is currently building large sections of the Queen Elizabeth Class Aircraft Carrier for the Royal Navy and is also undergoing a period of transformation.

The facilities in Glasgow comprise a mixture of office and manufacturing/production areas. The offices are split between two principal functions: those that support the manufacturing/production areas and those currently designing future products. The manufacturing and production areas comprise of a number of workshops which collectively perform all stages of the build from light fabrication to heavy construction.

The VIBES Management Award recognises businesses, whose management systems deliver continuous improvement in environmental performance. The category is aimed at businesses that are taking a holistic approach to environmental improvement and can demonstrate the associated economic and social benefits that have been achieved. The VIBES Judges felt that BAE Systems stood out in this area and were impressed by their application and visit to the site.

From application to site visit, the VIBES Judges (representatives from Zero Waste Scotland and SEPA) felt that BAE Systems demonstrated excellent commitment to their environmental approaches and successfully integrate these into their business objectives. They have demonstrated that all staff from the shop floor to senior management are positively involved in reducing the company's impact on the environment.

#### Highlights

- Introduction of a sustainability course in 2013/2014 for leaders.
- Reducing vehicle movements to site and maximising the use of video and telephone conferencing
- Sponsor at board level for sustainability issues.
- Sustainability included in all aspects of the design process for new Type 26 vessel, the design team includes environmental engineers to embed sustainability into the design.
- Embedded sustainability into the business through Environmental Sustainability Maturity Matrix.
- Research undertaken with Strathclyde University to review equipment design to improve operational efficiency
- Sustainable procurement policy implemented with strong emphasis on sustainability within the supply chain.

BAE Systems was accredited with ISO 14001 in 2006 and were the first in the group to achieve ISO 50001 in 2012 for energy management (one of the first businesses in Scotland). BAE Systems has an internal Environmental Sustainability Maturity Matrix which supports the integration of sustainability into every day decisions and practices. The facilities in Glasgow have achieved level 3 on this matrix which demonstrates that 'our environmental understanding and controls are operated across the business'.

#### VIBES Award Category:



#### Management Award

##### Large Category

(Sponsored by Albert Bartlett)

#### Winner:

**BAE SYSTEMS**  
INSPIRED WORK

#### BAE Systems Naval Ships

There is an established sustainability forum with employee representation from across the sites. There is also an online global forum for sharing sustainability ideas with different BAE Systems businesses across the different countries/cultures. In addition to internal communication, the company works closely with their customers and suppliers in reducing waste throughout the supply chain.

The VIBES Judges felt that there was a genuine drive to become a lean and efficient business that minimises environmental impacts, maintains very good standards of safety and has a high quality of product. A number of examples were provided to demonstrate this including initiatives introduced into the operations in the fabrication shed aimed at reducing consumption of raw materials, steel plate, argon gas and electricity. This is supported through their graduate placements and has full backing from senior management.

They are active in the community - the graduates and apprentices from the Clyde site supported 11 local secondary schools in the BAE Systems Schools Engineering Challenge which was a challenge to design, build and race model boats at Strathclyde University which was very successful. This was one of a schedule of education outreach activities which led their STEM ambassadors to inspire more than 6,000 young people around engineering in 2014 alone. The company hosted a World Environment Day in 2014 for employees which included presentations from Home Energy Scotland and SEPA. Some employees took part in eco-driving lessons.

The VIBES Judges were impressed that the site is leading the way within BAE Systems to embed practical measures to achieve resource efficiency into a changing work culture.

The training course introduced for managers - 'Leading with Sustainability' was developed in conjunction with the Institute of Environmental Management and Assessment (IEMA) and was covered in IEMA's *The Environmentalist* magazine which is issued to all members of IEMA globally. Based on its success, this course is being rolled out to other BAE System business units. Innovative ways of managing shop floor activities are also being trialled, with notable success.

The environmental approaches implemented at BAE Systems have resulted in a variety of environmental savings and reduced impacts including:

- Redesign of welding equipment, cutting the use of argon and carbon dioxide by 50% saving £180,000 per annum.
- Decentralisation of the compressed air system, resulting in savings equivalent to 518 carbon tonnes and savings year to date £164,454
- Introduction of building management system to control energy use.
- Installation of lux meters and Infra-red sensors to maximise light efficiency resulting in a 20% and 60% saving on energy respectively
- Introduction of modular and re-usable packaging to significantly reduce packing waste generated

The company has plans for the future development of the site. These plans include new buildings constructed with many eco-design features and BREEAM (Building Research Establishment Environmental Assessment Method) very good rating is intended. The ethos identified at the site demonstrates that embedding sustainability into every day operations leads to a positive knock-on effect for the local and national economy.

*Mick Ord, Managing Director of BAE Systems Naval Ships, said: "At Naval Ships we are committed to transforming into a more environmentally responsible company through all aspects of our activities, operations and product development so I am extremely proud that our efforts have been recognised with this award."*

*"Sustainable practices are not achievable in isolation, so we have adopted an integrated approach to environmental responsibility. This means ensuring we actively work with our supply chain to deliver environmental improvements, use the knowledge of our teams to implement resource efficiency savings, engage our communities and our people on environmental issues and ensure that we work with our customer to deliver an environmentally sustainable and innovative product."*

*"This excellent recognition will help support our continued efforts and is a welcome acknowledgement for all who have contributed to our journey so far."*



BAE Systems accepting their VIBES Award



VIBES Judges and BAE Systems employees during the on-site visit.