



Corporate Environmental Responsibility in the Defence Industry: A Driver for Green Innovation?

by Roman Kernchen

Many defence companies are already taking pro-active steps to reduce greenhouse gas (GHG) emissions and energy consumption, and help customers do the same. Several key trends are driving increased pressure on manufacturers to take a more strategic approach to improving product environmental performance, starting with being compliant with the applicable regulations. Governments, environmental NGO's, investors, consumer groups, and customers are all taking actions:

- Defence departments of many nations announced that armed forces will be “doing its bit” to address climate change by implementing Sustainable Procurement Strategies [1]. Defence contractors will need to leverage strong existing core skills in areas such as control and automation and robust research and development processes to offer solutions with a reduced carbon footprint [2, 3].
- The number, scope, and complexity of environmental regulations applicable to manufactured products are expanding rapidly around the world [4]. RoHS and similar substance restriction or disclosure regulations are being adopted around the world. The European Union also implemented Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH), with a disclosure requirement for products [5].
- Concurrently with the increasing number of regulations, enforcement agencies are stepping up surveillance. As agencies in the European Union have become more knowledgeable about how to enforce regulations like RoHS, and about the use of equipment required to enforce it, they have been more active and successful in finding violations.

- Public consumer awareness is growing; and more public pressure is being placed upon governments, MODs, DoDs and the defence industry to become more environmentally engaged [6]. This has been backed up by the implementation of government wide sustainable procurement strategies, action plans and teams, and the setting of targets for reductions in emissions enshrined in legislation (such as Climate Change Acts) [7].

- Investor awareness is also growing in the defence industry and shareholders are asking for more transparency on sustainability via activities like the Carbon Disclosure Project, the Investor Network on Climate Risk, the Investor Environmental Health Network, and the Dow Jones Sustainability Indexes. As environmental awareness increases, the value of a company is measured in part by its ability and willingness to conduct its business in a sustainable manner [5]. In fact, sustainability reports are becoming as natural a part of an annual report as the balance sheet and income statement. Depending on what is included in voluntary reports on corporate social and environmental responsibility (CSER), the degree of compliance with obligatory governmental (particularly environmental but also work environment, safety, etc.) regulations can be evaluated, and the performances of either private or public organizations can be compared with those of peer organizations.

Advantages of environmental leadership

As many scientists have demonstrated, environmental leadership in the private business sector can potentially provide competitive advantages, for example, cost reduction, increased market share, and technological leadership [8]. But how does environmental responsibility translate into a defence context with all its particularities? The approach needs to be comprehensive and needs to take sustainable development goals into account. Each phase of the defence product lifecycle comes with an environmental footprint. This includes aspects pertaining to climate change, biodiversity and cultural heritage. Understanding the impact of the footprint allows for implementing measures to reduce it. The planning phase plays an important role and can have effects that be far as thirty years later. New business models are also important in this context, in order to catalyse more environmentally responsible solutions. The defence industry is still contributing to a circular economy through increased sustainability awareness, technical innovations and responsible disposal and recycling. Accreditation to ISO 14001 (Environmental Management) or equivalent is encouraged throughout its members and supply chain. Circular economy is defined as an economy where the value of products, materials and resources is maintained in the economy for as long as possible, and the generation of waste minimised.

A driver for green innovation

Military stimulation of technological development has deep roots. At its height during the twentieth century, military needs played a major role in driving the development of new technologies such as semiconductors, the global positioning system, the Internet, and computers that not only transformed war fighting, but the civilian realm as well. Both military-driven research and development and procurement from the private sector drove this innovation. As a first user of new environmental technologies, the military not only can help evaluate their effectiveness, but by its very size creates a needed market to simulate innovation.

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